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2d Session } { 100-321

THE 1988
JOINT ECONOMIC REPORT

REPORT

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ON THE

1988 ECONOMIC REPORT
OF THE PRESIDENT

TOGETHER WITH

MINORITY AND ADDITIONAL VIEWS

April 22 (legislative day, April 11, 1988.—Ordered to be printed

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LETTER OF TRANSMITTAL

MARCH 5, 1987.

Hon. ROBERT C. BYRD,
Majority Leader, U.S. Senate,
Washington, DC.

DEAR MR. LEADER: Pursuant to the requirements of the Employment Act of 1946, as amended, I hereby transmit the Report of the Joint Economic Committee. The analyses and conclusions of this Report are to assist the several committees of the Congress and its Members as they deal with economic issues and legislation pertaining thereto.

Sincerely,

PAUL S. SARBANES, *Chairman.*

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100TH CONGRESS
2d Session

SENATE

REPORT
100-321

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Mr. SARBANES, from the Joint Economic Committee,
submitted the following

REPORT

together with

MINORITY AND ADDITIONAL VIEWS

I. INTRODUCTION

In its Annual Report one year ago, the Joint Economic Committee observed that, while the economy appeared tranquil, warning signs lurked just below the surface. The Committee's August 1987 staff study, "The Economy at Mid-Year. A Legacy of Debt," reiterated that concern. The study focused on the warning signal of the growing U.S. foreign debt, which in five years has transformed the United States from the world's largest creditor nation to the world's largest debtor nation and returned the United States to net debtor status for the first time since 1919.

Another warning signal was the 508-point decline in the stock market on October 19, an event "without historical precedent," as one witness observed to the Committee. The turbulence in the capital markets has raised serious questions about the operations of the markets, the stability of the financial system, and the strength of the economy in the months ahead.

1988 is therefore an uncertain year with respect to the economic outlook. In the aftermath of October 19, virtually all gross national product (GNP) growth forecasts were revised downward. Many predicted very slow growth during 1988, and some an actual recession as a consequence of the stock market collapse and other signs of economic weakness. Subsequent events have called these forecasts into question, however, and some now raise fears about possible capacity constraints and inflationary overheating of the economy.

Forecasting the precise course of the U.S. economy is not the task of this Committee, but the pattern of volatility in both the real economy and the views of forecasters is itself a cause for concern. It indicates uncertainty in both the financial markets and the forecasting community about our economic future, and deepens our concerns about potential problems which could cause major dislocation in the future.

The concerns are not limited to the effects of the October market shock, but include the high consumer debt burden; the prospects for continued slow growth in the rest of the world; the absence of concerted action to address the problem of Third World debt; the persistent volatility in the capital markets; and the sustainability of deficit reduction in the event of an economic downturn. While the volume of U.S. exports is increasing, in what appears to be the long-awaited and long-delayed response to the decline in the exchange value of the dollar, the volume of imports continues to rise, raising concerns about our ability to maintain steady progress on improving the external trade balance.

Perhaps the greatest uncertainty concerns monetary policy. In the absence of unambiguous signs that the nominal trade deficit is on a steay and sustainable downward path, it may prove difficult to focus monetary policy solely on assuring domestic growth. The potential dilemma for the Federal Reserve has been expressed bluntly by H. Onno Ruding, Chairman of the policymaking committee of the International Monetary Fund (IMF), in his remark that the United States will have to "tailor monetary and interest rate policy more to external considerations." In his blunt words, "My American friends are not accustomed to the fact that the United States is a highly indebted country."

The concerns reflect increasing skepticism about the foundation on which the current recovery has been built. Having begun in the wake of the worst recession since the Great Depression of the 1930's, the recovery has been achieved at the cost of transforming the United States from a nation which typically produced more than it spent into a nation buying substantially more than it produces. The U.S. foreign debt, accumulated over the past five years, now stands at an estimated $400 billion; in the next decade it is expected to reach the $750 billion-$1 trillion range before leveling off and then declining. Such excessive imbalances cannot be sustained indefinitely, and although they were accumulated rapidly, they almost certainly cannot be remedied at a comparable pace. Their emergence is not happenstance. The stunning deterioration of the U.S. external position reflects a fundamental mismatch of fiscal and monetary policies in recent years.

This year's Report reviews the short-term and long-term outlook for the economy against the background of the economic policies which have dominated the 1980's. It underscores the challenges we face if we are to have the vigorous economy which is crucial to the health of our society and to our standing in the world.

II. THE OUTLOOK

1987 IN RETROSPECT

1987 was a mixed year for the economy. Many key indicators of economic performance showed unusual volatility during the year while extreme instability characterized the financial markets.

Taken together, the economic events of 1987 have created a climate of uncertainty about the economic prospects for 1988.

Among the principal developments of 1987 were the following:

Real GNP growth of 3.9 percent. This growth figure was encouraging although almost 40 percent of the increase in output in 1987 went into inventories. Sales to domestic purchasers—which in previous years had been growing faster than output—slowed considerably in 1987. The $16 billion improvement in our net exports last year, after adjusting for inflation, was a small but welcome source of strength.

October 19 stock market drop. The Dow Jones Average fell 508 points, or 22 percent, in a single day, following the 108-drop on October 16. Similar plunges occurred in stock markets worldwide. Between October 14 and October 20, the Dow lost close to 30 percent of its value. Although the market has partially recovered from the October decline, it remains unusually volatile.

Declining unemployment. After hovering in the range of 7 to 75 percent from 1984 through 1986, the unemployment rate declined significantly during the last year to its current level of 5.6 percent.

Disappointing productivity improvement. Output per worker rose only 0.9 percent during 1987, the lowest increase during the current expansion. The 3.3 percent growth in manufacturing productivity, while higher than the overall growth rate, was also lower than any year since 1983.

Volatility in interest rates and monetary policy. Interest rates rose significantly during 1987 as money supply growth slowed, only to fall sharply after October 19 as the monetary authorities moved quickly to assure liquidity in the financial system. Most interest rates, however, are still higher than they were a year ago.

Moderate inflation. The Consumer Price Index (CPI) rose 4.4 percent, up from the 1.1 percent of 1986, but still well within moderate limits. Volatile oil prices contribute to substantial variation in the year-to-year inflation rate, while the "core" inflation continues to hover in the 4 percent range.

Instability in the foreign exchange markets. Several strong moves against the dollar drove its value down well below the levels endorsed by the major trading nations, while several equally strong central bank interventions served temporarily to reverse the downward drift.

Piecemeal efforts to address the continuing Third World debt crisis. Brazil declared, then renounced, a moratorium on debt service, the major Latin American debtors issued a strongly worded consensus statement on the magnitude of the problem, major banks set aside significant loan loss reserves, and an innovative proposal for discounting Mexican debt met with an unenthusiastic response from private commercial banks.

U.S. net debtor status. In 1985, for the first time since 1919, the United States, which as recently as 1982 was the world's largest creditor, became a debtor nation, borrowing a record $141 billion from abroad. 1987 surpassed the 1986 figure, leaving the United States with a net foreign debt of roughly $400 billion at the end of the year.

Growing nominal trade deficit. The U.S. trade deficit grew by $15 billion 1987 to $171 billion. The $20 billion improvement anticipated by the administration as late as midyear failed to materialize. The rate of growth in the deficit slowed, however, as exports rose—an encouraging sign that the deficit might start to decline in 1988.

Strains in the financial system. There were 202 bank failures in 1987, compared to fewer than eight per year during the 1970's and 10 per year in 1980 and 1981. While the Federal Deposit Insurance Coporation (FDIC) seemed able to cope with the volume of bank failures, the Federal Savings and Loan Insurance Corporation (FSLIC) and the Farm Credit System (FCS) did not have the resources to meet the potential demands upon them and both required congressional action to assure recapitalization.

This brief outline suggests the degree to which 1987, taken as a whole, could provide support for conflicting views about the state and future of the American economy. Those forecasting continued growth could point to the export, inflation, and employment trends of last year. Those forecasting a slowdown could point to stagnant personal incomes, rising inventories, growing debt burdens, and the psychological effects of the stock market crash.

PROSPECTS FOR 1988

Given the mixed signals of 1987, it is hardly surprising that there is considerable uncertainty among professional forecasters about the course of the economy in 1988.

In the April 10 survey of 50 economists reported by the Blue Chip Economic Indicators, the consensus growth forecast for 1988 was 2.4 percent, compared with a consensus of 1.9 percent in November and 2.8 percent prior to October 19. But the April survey saw this consensus forecast rise as analysts revised their thinking about a number of critical sectors of the economy. The Congressional Budget Office (CBO) projects a 1.8 percent real growth rate for this year, while the administration's latest forecast is for 2.4 percent real growth, revised downward from the 3.5 percent growth forecast issued last August.

A review of the components of GNP highlights the uncertainties which give rise to the variability of economic forecasts.

1. *Consumer spending.*—Consumer spending, which accounts for two-thirds of GNP, has been the driving force of the current recovery and has been strong despite the sluggish rate of growth in disposable income. Consumers have been saving less of their income while borrowing more heavily and there is considerable question whether this pattern will continue.

Last year consumers saved only 3.7 percent of their after-tax income. This is barely half the rate achieved in 1981 and the lowest level in 40 years. At the same time, the debt-to-income ratio for American households remained at an historically high 16 percent. In the fourth quarter of 1987, however, the savings rate jumped sharply, from 2.8 percent in the third quarter to 4.8 percent. As a result, total personal consumption expenditures fell at an annual rate of 2.5 percent. If this marks the start of a trend, consumer spending could remain weak through much of 1988 as households attempt to rebuild their balance sheets.

2. *Investment.*—Investment performance last year was mixed. Home building declined by 2.4 percent, while business investment

in plant and equipment rose 5.1 percent. The rise in business investment, however, just offset a 4.7 percent decline in 1986, meaning no increase over the two-year period.

Several signs suggest continued weak housing activity in 1988. First, housing starts, a leading indicator of residential construction activity, declined through much of last year and in December were at the lowest level since the end of the 1981–1982 recession. It is too early to say whether the upturn in housing starts in February will contunue, and the current level remains well below last year's. Second, the drop in personal wealth and consumer confidence in the wake of October 19 will make some potential home buyers more cautious. Third, increases in mortgage rates and home prices in 1987 will carry over to the early part of 1988. Finally, the bankruptcy of a major mortgage insurance firm appears to be leading to a reduction in insurance underwriting of low down-payment mortgages, a development which could force many first-time buyers out of the housing market.

The outlook for nonresidential investment is similarly clouded. The Commerce Department reported in December that business plans to raise its spending on new plant and equipment by 7.3 percent this year, after adjustment for inflation. If the Commerce Department estimate is borne out, nonresidential fixed investment will be a significant source of economic strength in 1988, but there are reasons to question this estimate. Capital goods orders have not been particularly strong, while the overall industrial capacity utilization rate was 82 percent in December, well below the 87 percent figure at the peak of the recovery of the late 1970's. Even in industries where capacity is tight, there is little evidence of major new capital spending to add new capacity.

3. *Exports and imports.*—The U.S. real net export deficit declined 10 percent over the four quarters of 1987. All of the improvement came on the export side, with real exports rising by 17 percent. Real imports continued to grow, but more slowly, by 9 percent. The continued rise in imports occurred despite a substantial 9.6 percent increase in the prices of imports other than fuels. This development indicates the strength of Amercian demand for imports and in many cases the willingness of foreign producers to cut profit margins in the interests of maintaining a share of the American market.

Previous forecasts of a significant drop in our net imports have not been borne out, however, as the competitive effects of the declining value of the dollar have been slow to be realized. The dollar peaked three years ago, in early 1985, and has declined consistently since then, yet the trade deficit in current dollars reached a record high in the last quarter of 1987. Whether the lags are simply longer than anticipated or whether the fundamental theory needs reexamination, the past record of excessive optimism suggests the need for caution with respect to the trade outlook for 1988.

4. *Government spending.*—Many analysts expect Federal purchases of goods and services in real terms to decline in 1988, in accordance with the congressional-executive budget agreement and the assumptions in the President's budget. Real spending by state and local governments is not likely to rise faster than the moderate pace of recent years. Overall, the government sector is unlikely to

be a significant factor in stimulating or restraining economic growth.

While the consensus outlook remains one of moderate growth, some forecasters are now beginning to raise questions about possible inflationary overheating of the economy. As evidence they cite increasing consumer confidence, capacity constraints in key industries, and increasingly tight labor markets.

These views do not command a majority of forecasters, but concerns about possible overheating cannot be dismissed out of hand. From the point of view of capital markets, an inflationary overheating of the American economy could produce substantial problems, especially in the bond market.

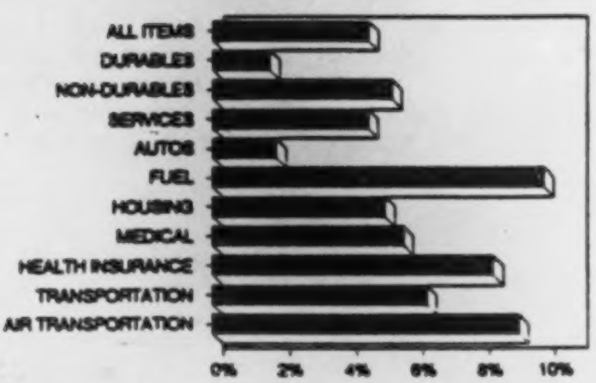
The CPI last year rose 4.4 percent, after having risen only 1.1 percent in 1986 in the wake of collapsing oil prices. Nonetheless there are signs that inflation, while under control, remains a potential problem. Federal Reserve Board Chairman Alan Greenspan told the Committee "Monetary policy needs to remain supportive of the expansion but also alert to the possibility of a reemergence of inflation." Some of the reasons for this concern are:

First, the falling dollar. By raising import prices, the declining dollar creates an opportunity for domestic producers of import-competing goods to raise their prices as well. While thus far much of the dollar's decline has been absorbed in the profit margins of foreign producers, further declines are likely to be accompanied by price increases.

Second, capacity utilization. Recently, strong output gains have occurred in export industries that have benefited from the lower dollar. Many industries are currently operating at or near full capacity. The continuation of tight monetary and loose fiscal policies of recent years led to an unprecedented rise in the value of the dollar that undermined U.S. competitiveness in both domestic and foreign markets. The effect was to discourage investment in many export industries. Additional demand is thus more likely to produce price increases rather than output increases.

Third, sectoral inflation. Prices are rising at a rapid rate in some sectors of the economy. As Figure 1 shows, inflation in such key service sectors as health and transportation is running substantially ahead of the overall price level.

FIGURE 1



1987 PRICE INCREASES
SELECTED CONSUMER EXPENDITURES

Finally, wage pressures have been remarkably restrained despite recent strong employment growth and tightening in certain regional labor markets. There is a real question whether workers, whose share of national income has declined significantly over the past six years, will accept a declining living standard in a climate of relatively high employment, tight labor markets, and rising corporate profitability.

The picture on employment is mixed. The first quarter employment statistics saw a drop in the overall unemployment rate and a rise in the number of persons employed. At the same time, the consensus among the forecasters surveyed in April by the Blue Chip group was that the jobless rate will rise slightly in 1988 because growth will be too slow to prevent higher unemployment. In the more detailed Blue Chip Economic Indicators released in January, only five forecasters foresaw a decline in the unemployment rate and this group, on average, forecast GNP growth of 3.1 percent, above the consensus forecast. Thus it is likely that the unemployment rate will decline only if 1988 GNP growth is higher than 3 percent, and rise if growth is lower than 3 percent.

III. Economic Policy and Performance

In 1981, the country embarked on a period of radical shifts in economic policy. Fiscal policy was transformed by a rapid increase in defense spending that exceeded restraints in spending on domestic programs and was coupled with a cut in the revenue base. Monetary policy has been characterized by unusually high and persistent real interest rates, despite a relative decline of nominal rates following abandonment of Federal Reserve targeting practices.

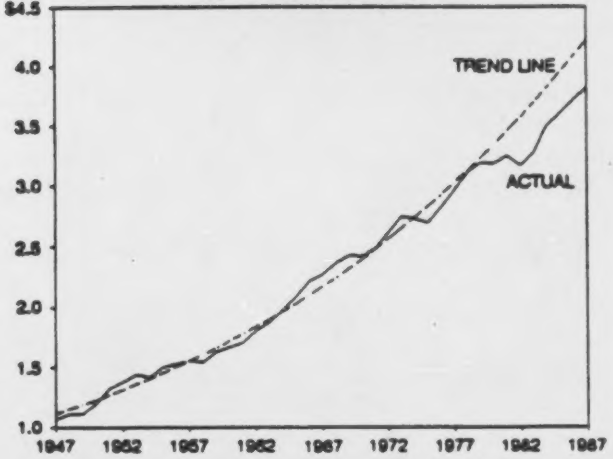
A careful review indicates, however, that, as a result of these radical shifts in policy, many key indicators showed weaker economic performance in the 1980's than in the 1970's. Others showed performance in the 1980's as no better than in previous periods and some indicators showed a better performance.

ECONOMIC GROWTH

Figure 2 shows the actual performance of real GNP relative to a trend line constructed from all the years between 1947 and 1980. The chart shows that real economic growth slipped below trend during the latter part of the 1970's, experienced a period of relatively fast growth during 1984 and 1985, and then slowed, remaining below trend for the rest of the period. Thus while GNP has continued to grow, there has been no acceleration in the growth rate.

FIGURE 2

REAL GROSS NATIONAL PRODUCT
ACTUAL VS. 1947-1980 TREND
(Trillions of 1982 Dollars)



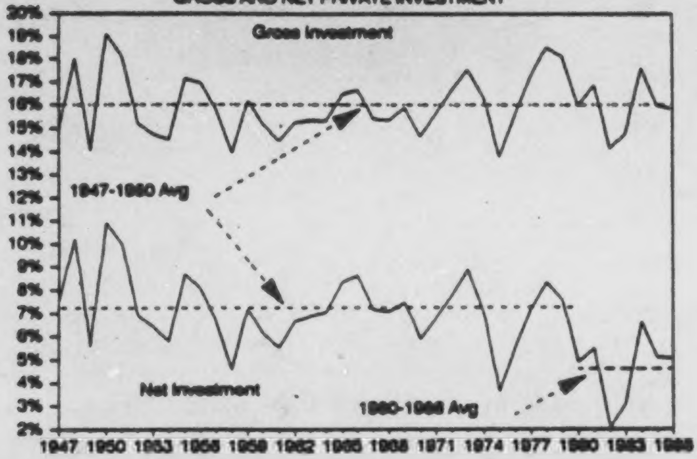
INVESTMENT

The United States has traditionally had gross investment of roughly 16 percent of GNP, a rate below that in other industrialized countries. The rate of "net" investment (gross investment minus depreciation) traditionally averaged roughly 7 percent of GNP. As Figure 3 demonstrates, the ratio of gross investment to GNP hovered around its historic average of 16 percent during the 1980's, but net investment plummeted, averaging only a little more than 4 percent during the period. There is no persuasive evidence that investment responded positively to various incentives built into economic policy during the 1980's.

FIGURE 3

INVESTMENT AS A SHARE OF GNP

GROSS AND NET PRIVATE INVESTMENT

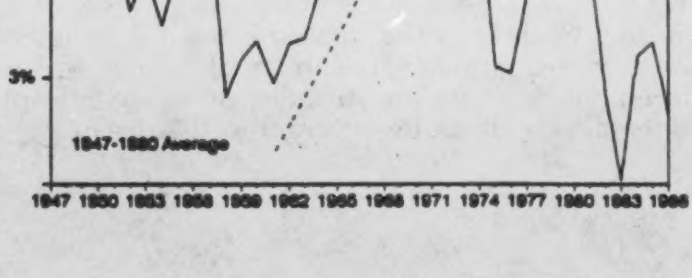


In terms of increasing the growth potential of the economy, perhaps the most important statistic on investment is the ratio of net nonresidential fixed investment to net national product (NNP). This provides a measure of the rate at which a country is adding to its private capital stock, after subtracting the value of investment which merely replaces capital which has worn out during the year. As Figure 4 suggests, this ratio plunged dramatically between 1980 and 1983, rose slightly in 1984 and 1985, then fell again in 1986, the latest year for which data are available.

FIGURE 4

NET NONRESIDENTIAL INVESTMENT

AS A SHARE OF NET NATIONAL PRODUCT



Combining the data in Figure 4 into five-year segments in the following table clearly shows the deterioration in net investment that has occurred.

TABLE 1.—*Net nonresidential fixed investment as a percentage of NNP*

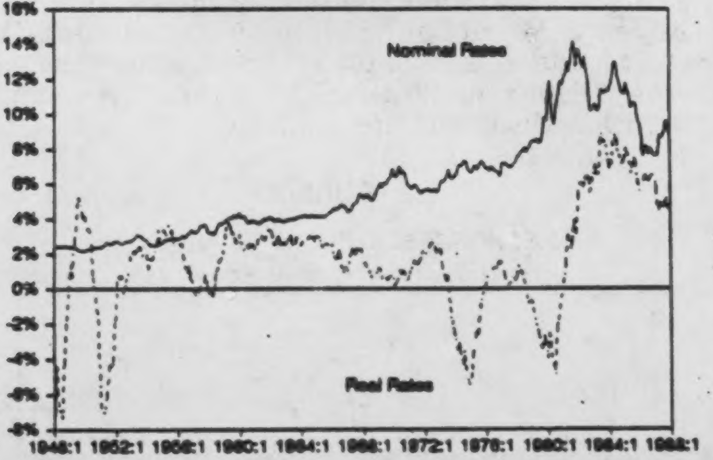
Period:	
1951 to 1955	3.4
1956 to 1960	3.1
1961 to 1965	3.2
1966 to 1970	4.4
1971 to 1975	3.7
1976 to 1980	3.6
1981 to 1986	2.5

INTEREST RATES

On major reason for the unimpressive performance of investment (set out in the previous table and figure) has been the very high interest rates. Figure 5 shows that both nominal and real interest rates (nominal rates minus the change in the CPI over the past 12 months) were pushed to historic highs during the 1980's, and that both have remained at historically high levels even after the peak.

FIGURE 5

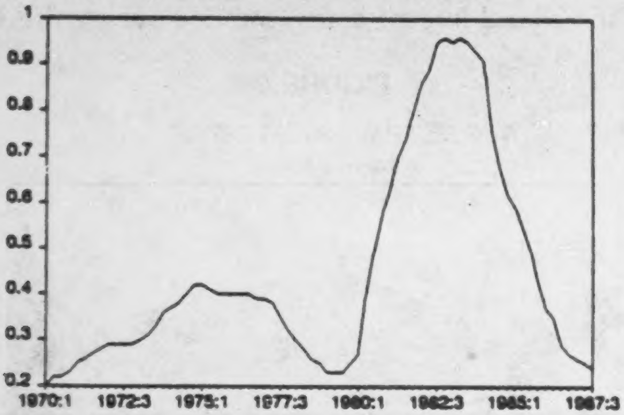
LONG-TERM INTEREST RATES ON GOVERNMENT BONDS



No only were interest rates high, they were also volatile. Volatile interest rates have generally negative effects on business investment planning, while creating opportunities for excessive speculation in the capital markets. The profound change in the interest-rate environment is shown in an index of day-to-day interest-rate volatility compiled by Data Resources, Inc. (Figure 6).

FIGURE 6

INDEX OF INTEREST RATE VOLATILITY

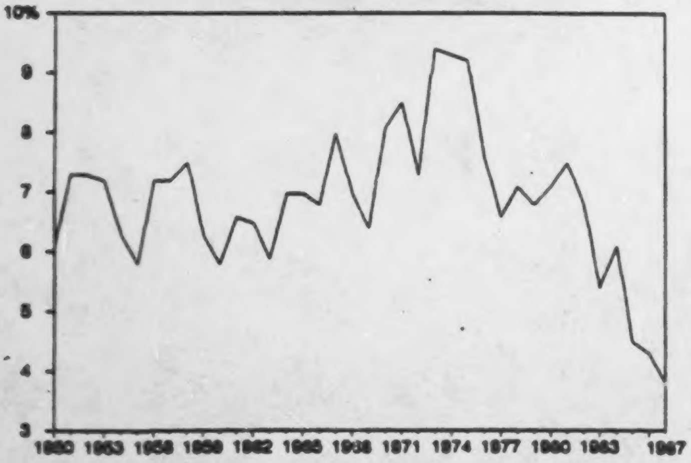


SAVINGS

In 1980 individuals saved 7.1 percent of their after-tax income. One of the main goals of the supply-side program was to increase additional personal saving. Despite the remarkable rate reductions and other specific saving incentives, the personal saving rate fell to 3.7 percent by 1987. Individuals today are saving only about half as much as they did seven years ago, and the saving rate is the lowest since 1947 (see Figure 7).

FIGURE 7

Personal Saving as a Percentage of Disposable Personal Income, 1950-1987



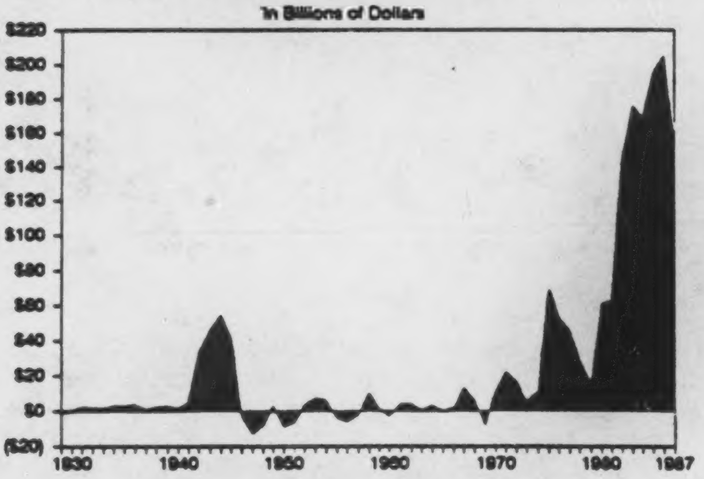
THE BUDGET DEFICIT

In 1981 the administration asserted that "the Federal budget will actually generate a surplus in 1985 and 1986, for the first time since 1969." As Figure 8 demonstrates, exactly the reverse happened, and the Federal budget deficit swelled during the 1980's.

FIGURE 8

THE FEDERAL BUDGET DEFICIT

In Billions of Dollars



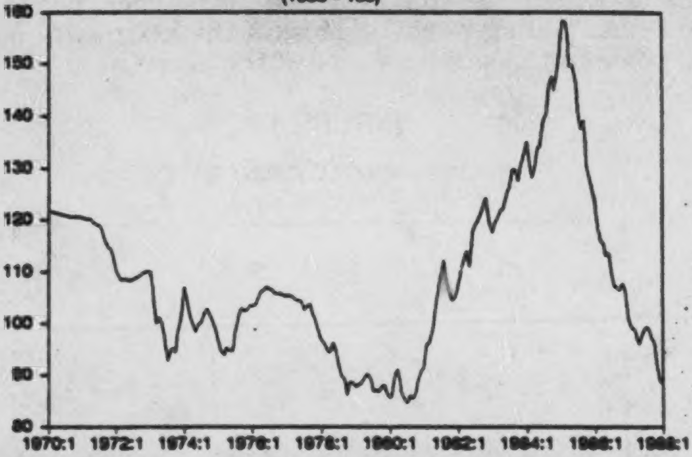
THE TRADE DEFICIT

The high interest rates and large budget deficits of the 1980's, combined with a policy of indifference toward the exchange rate and the competitiveness of American firms, drove the dollar well above its competitive level and helped create a massive trade deficit for the United States (Figure 9).

FIGURE 9

TRADE-WEIGHTED DOLLAR INDEX

(1980=100)

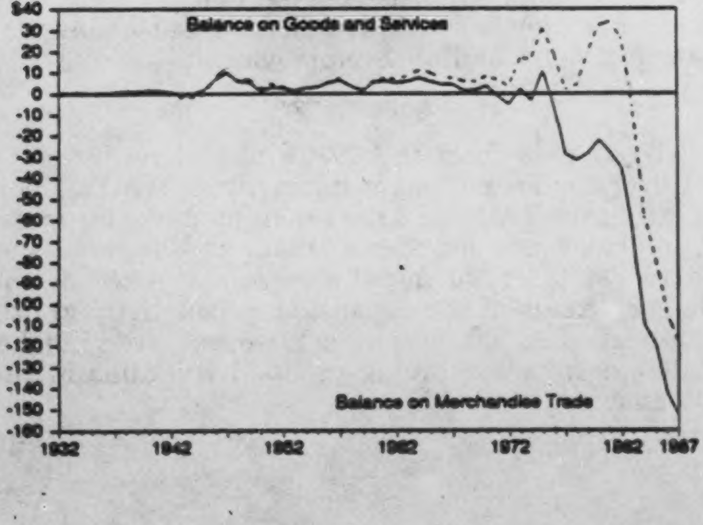


As Figure 10 shows, America's overall trade balance on goods and services posted a small but steady surplus through the 1970's, then dropped precipitously in the 1980's. The figure also demonstrates that the merchandise trade account began to deteriorate at an earlier stage, and experienced a deeper decline than the balance on goods and services. Trade in services, and investment earnings on direct investment abroad, kept the broader trade measure in surplus during the late 1970's, but the accumulating merchandise deficits transformed the United States from a creditor to a debtor in 1985, largely removing net investment income as a counterbalance to the merchandise trade deficit.

FIGURE 10

THE AMERICAN TRADE BALANCE

In Billions of Dollars

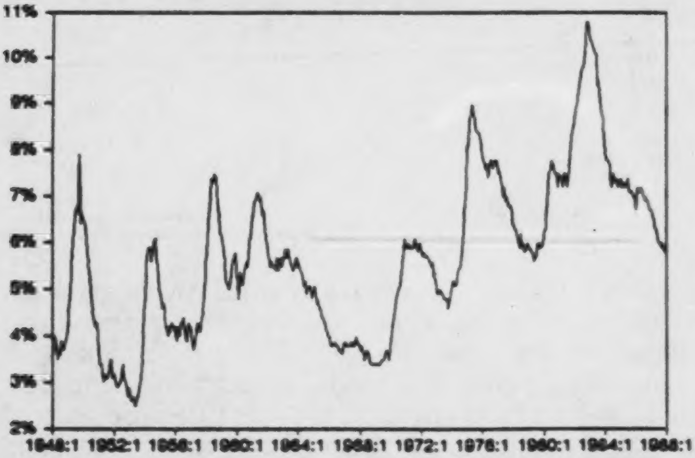


UNEMPLOYMENT

Unemployment rose to a post-Depression high early in the 1980's, and has subsided slowly in the years since the peak (Figure 11). During 1987, the unemployment rate began to decline more rapidly as the manufacturing sector reversed its earlier pattern of job losses and began adding workers. Most of the job growth during the 1980's has come in the service sector of the economy.

FIGURE 11

CIVILIAN UNEMPLOYMENT RATE



At 5.6 percent, today's civilian unemployment rate is the lowest since 1979. It remains higher than the unemployment rate at earlier cyclical peaks, however, and questions have been raised about the stability of employment given the much greater use of temporary workers than in the past.

Reported unemployment levels in rural America are considerably higher than the national average. Rural unemployment rates have averaged almost 2 percent higher than metropolitan areas over the 1980's. In addition, it is possible that reported rates understate actual unemployment levels due to under counting, discouraged worker problems, and underemployment.

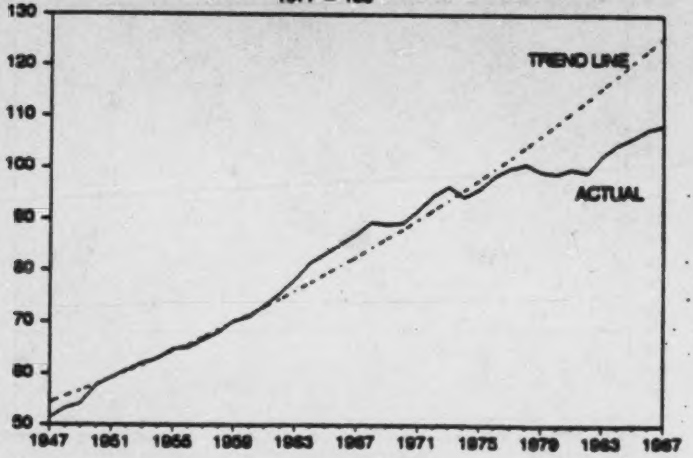
PRODUCTIVITY

Productivity figures from the 1980's also show little if any improvement over earlier periods resulting from the 1981 supply-side tax cuts. During the 1981–1982 recession, nonfarm business productivity fell far below the long-term trend, as Figure 12 shows, and has failed to catch up during the recovery. After a brief spurt during the early years of the expansion, productivity growth subsequently subsided and left output per worker even further below trend by 1987 despite continuing productivity gains in the manufacturing sector.

FIGURE 12

NONFARM BUSINESS SECTOR PRODUCTIVITY

1977 = 100



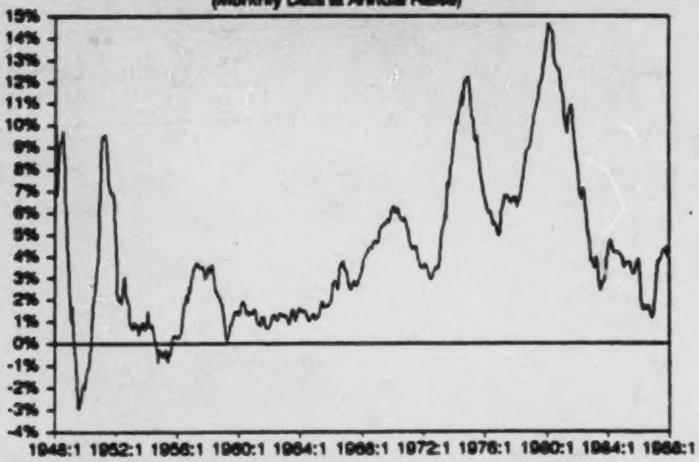
INFLATION

During the 1980's, substantial progress was made on controlling inflation in the American economy. Initially, control of inflatiion was accomplished through high interest rates, high unemployment, and a deep recession. During the recovery, inflation remained subdued because of substantial excess capacity in many industries, relatively high unemployment, and the price-depressing effects of imports and the overvalued dollar. When the dollar started to decline, inflation did not pick up as many had predicted, owing largely to the simultaneous and unanticipated decline in world oil prices and a willingness of foreign producers to cut prices and profit margins rather than raise U.S. prices of their products (Figure 13).

FIGURE 13

CHANGE IN THE CONSUMER PRICE INDEX

(Monthly Data at Annual Rates)



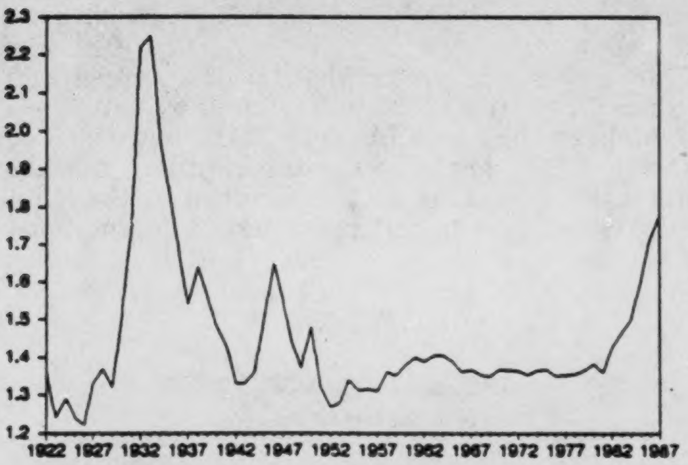
IV. THE LEGACY OF EXPERIMENT: DEBT AND DEFICIT

The principal legacy left to the future by the period of economic experimentation in the 1980's is a formidable accumulation of financial claims on future output. Unfortunately, the real assets necessary to create future output have failed to expand at a comparable rate. Federal fiscal policy has been based on deficit financing on a scale unprecedented in peacetime history, thereby pushing off into the future the burdensome task of paying for current spending. The trade deficits which converted this country from a creditor nation to a debtor nation have resulted in a substantial set of future obligations to foreign investors. Households and firms built up their own debt at a record pace.

The result of this massive process of debt accumulation by government, business, households, and the Nation as a whole is a stock of debt which is large relative to our national income. As Figure 14 demonstrates, the debt-to-GNP ratio for the United States, after holding steady for 25 years following World War II, has risen during the 1980's to heights not seen since the late 1920's and early 1930's. This deterioration in such an important financial ratio raises serious concerns about the stability of the economy in the future.

FIGURE 14

U.S. DEBT TO GNP RATIO



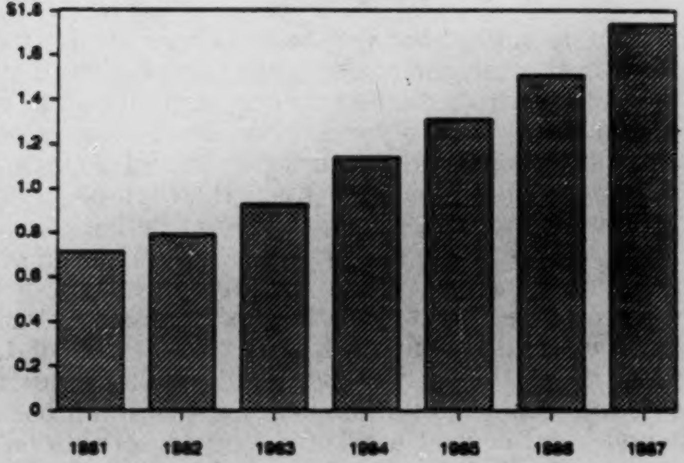
BORROWING BY THE FEDERAL GOVERNMENT

The problem of deficits became clear in the early 1980's, but refusal on the part of the administration to consider a balanced approach to deficit reduction led to a budget impasse for most of the subsequent years. The result of the impasse was soaring credit activity by the Federal Government, both in the form of direct borrowing and indirect use of credit markets to finance public programs (Figure 15).

FIGURE 15

FEDERAL DEBT

(trillions of dollars)

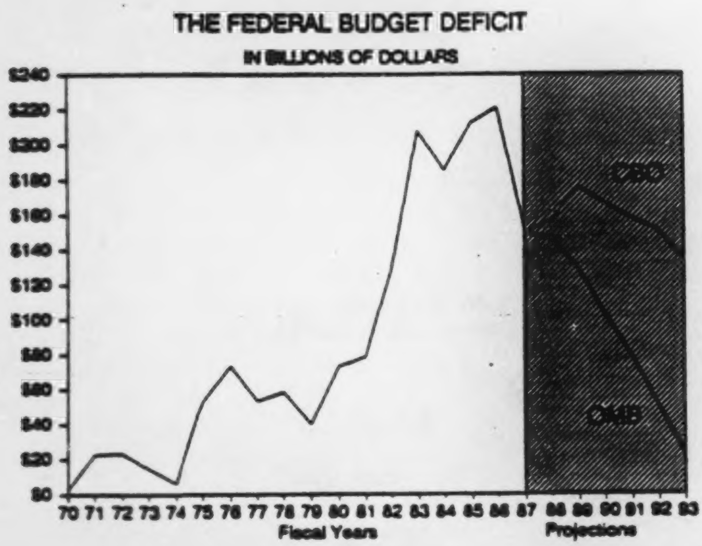


PROSPECTS FOR FEDERAL BORROWING

The October stock market crash and strong international pressure on the dollar required the administration to take a less confrontational posture on both revenue and military spending issues. The resulting budget compromise represents an important first step toward resolving the Federal deficit problem, but it remains only a first step.

Figure 16 shows the predictions for the course of the deficit through Fiscal Year (FY) 1992 as produced by both the President's Office of Management and Budget (OMB) and the Congressional Budget Office. CBO's predictions are for a more substantial deficit that declines less quickly than that foreseen by the administration, a difference which largely reflects different assumptions about the future of the economy.

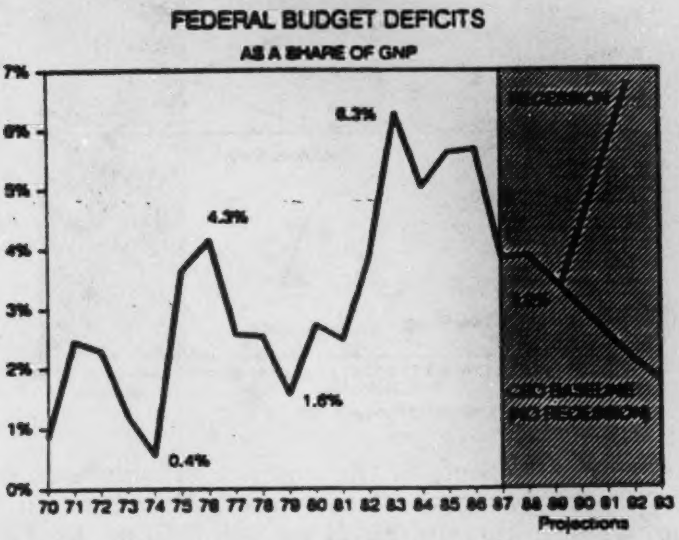
FIGURE 16



It is important to note, however, that neither projection makes any provision for the impact of recession, despite the fact that a majority of private forecasters currently anticipate a recession sometime within the next two years. Should a recession occur, the Federal budget situation would deteriorate rapidly, risking a serious disruption in financial markets given the high baseline deficit.

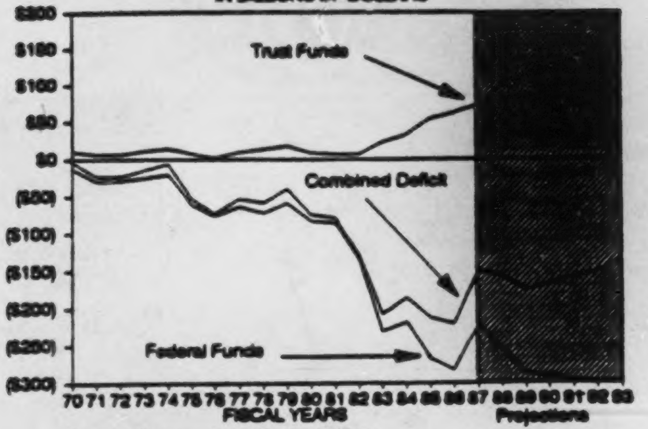
Figure 17 shows the changes in the Federal deficit as a share of GNP which took place during the past two recessions. In each case, the Federal deficit deteriorated by roughly 4 percent of GNP. If this pattern were to be repeated in the next recession, it could possibly drive the Federal deficit as high as 7 percent of GNP, an amount nearly twice the size of household savings during 1987. Deficits of this magnitude could put heavy pressure on both American and international capital markets. While international capital markets have been willing to finance very high levels of U.S. Government borrowing in the past, there are real questions about their willingness to finance expanding deficits in the event of recession.

FIGURE 17



A closer look at the components of the Federal deficit also raises serious concerns about the deficit-reduction process. Figure 18 demonstrates that virtually all of the progress on reducing the deficit comes from growing surpluses in the government's trust-fund accounts (principally social security). According to CBO, the deficit for all the activities of government not funded through trust funds actually increases during future years, even as the combined or "unified" Federal deficit declines.

FIGURE 18



SOURCES OF SURPLUS AND DEFICIT
IN BILLIONS OF DOLLARS

Source: Congressional Budget Office

CBO has estimated that, in the absence of surpluses in various trust funds, especially social security, the baseline deficit would increase from $254 billion in FY88 to $295 billion in FY93. Only when the surpluses in the trust funds are included in the total budget does the baseline deficit decrease from $157 billion in FY88 to $134 billion in FY93.

This raises concerns about both the path of deficit reduction into the next decade and the social security amendment enacted in 1983 to assure the health of the social security system in both the short run and long run. The 1983 changes were adopted to assure surpluses in the system necessary to respond to demographic and economic trends well into the next century, and not as a back door means of addressing the overall budget deficit.

In addition to this broad general problem, there are elements of current budget practice which create the appearance of budget savings without the substance. Asset sales and off-budget activities are two such areas deserving particular examination.

From the short-term perspective, loan sales offer the advantage that any losses from the sale of the loan at less than book value have no direct budget impact. Foregone interest and principal in future years increase outyear deficits but this is another budget's problem.

However, if the sales take place from off-budget portfolios, additional costs occur. Losses must be calculated after the sale and therefore funds to cover these losses are requested and appropriated in a subsequent budget. Thus if revenues of $2.5 billion from loan sales require the sale of $4 billion of loan principal, the $2.5 billion of revenue is counted in the fiscal year it is received while the loss of $1.5 billion does not show up for at least another year.

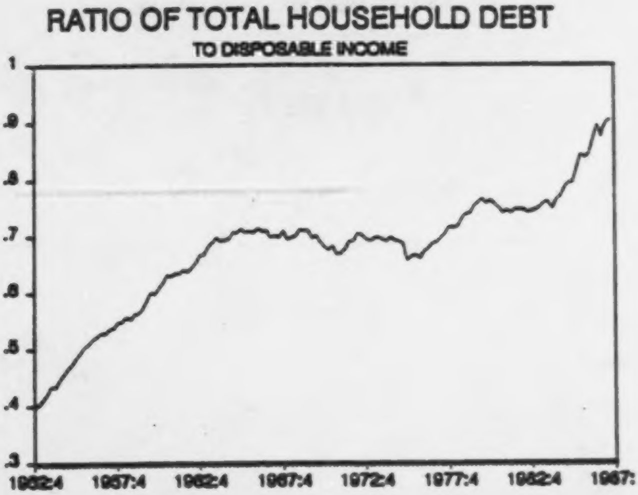
BORROWING BY THE PRIVATE SECTOR

Like the Federal Government, the private sector has been taking on a huge volume of new debt during the 1980's. Both households and firms have expanded their borrowing substantially, raising serious new questions about their abilities to service these expanded debt obligations in the event of a potential future economic downturn.

1. *Households.*—Household debt has risen during the recent past, driving most key financial ratios in the household sector to unprecedented heights.

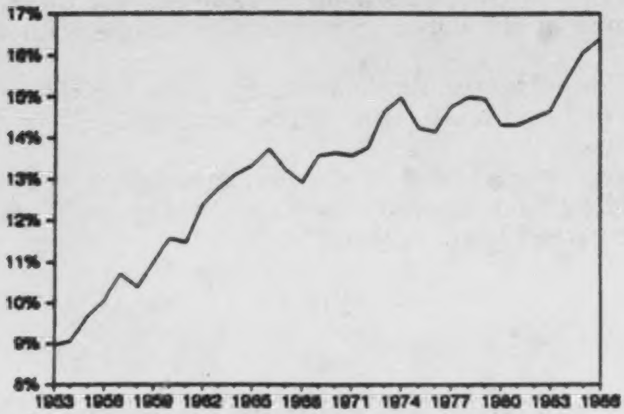
The most frequently cited credit indicator is the relationship of debt outstanding to household income. As Figure 19 shows, this ratio has risen steadily throughout the 1980's.

FIGURE 19



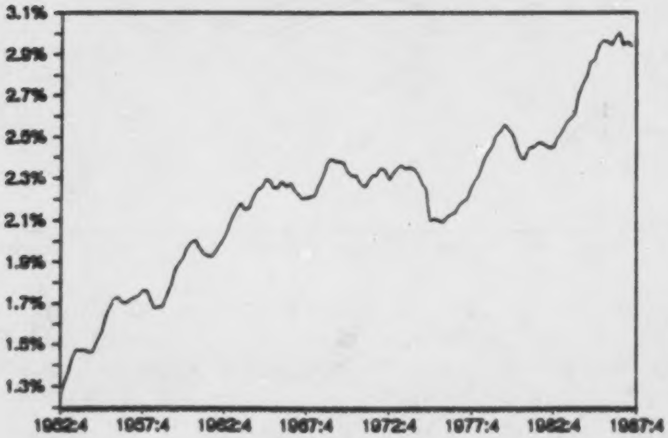
Because this comparison relates debt outstanding (a stock) to household income (a flow) it could be misleading. However, comparisons of stocks with stocks (household debt to household assets), and flows with flows (interest payments as a share of household income) yield results which confirm the broad trend toward increased indebtedness in the household sector (Figures 20 and 21).

FIGURE 20



Household Debt-to-Asset Ratio

FIGURE 21



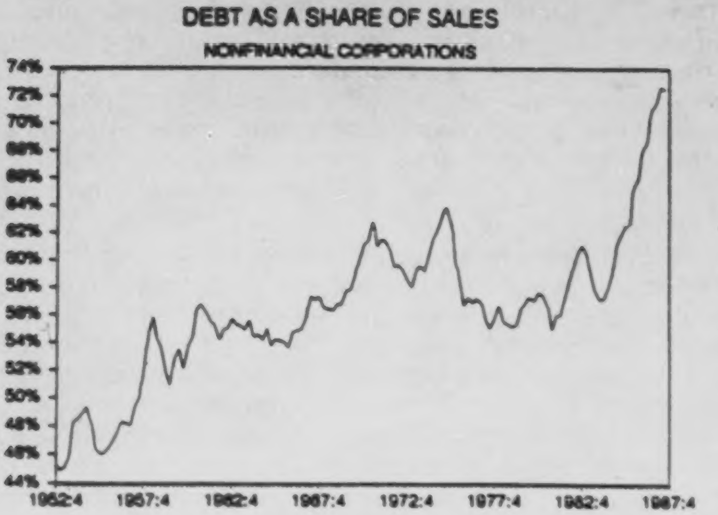
Interest Payments as a Share of Disposable Income

Households appear to be borrowing for a variety of reasons. Some appear to borrow to maintain an existing standard of living in the face of stagnant real income, since consumer purchases have grown despite stagnating real wage and salary income. Borrowing, and particularly short-term consumer borrowing on credit cards or from retailers, makes up the difference. Recent reports from the Federal Reserve Board also indicate that households at the upper end of the income distribution have also taken on debt at a record pace during the 1980's despite the fact that their incomes have increased rapidly.

For whatever reason, households may be getting further in debt than they can manage and are becoming especially vulnerable to a slowdown in the economy or further disruptions in asset markets. In an unstable financial and economic environment, excessive debt could precipitate an accelerating downturn as bankruptcies touch off a cumulative process of economic contraction.

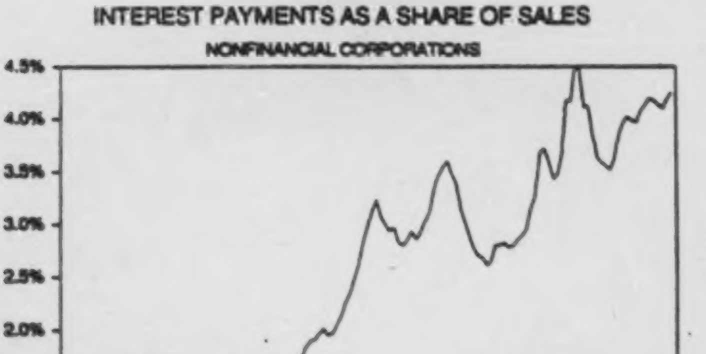
2. *Business.*—Corporations have also been going into debt to an unusual degree. As Figure 22 shows, debt has been constantly rising as a share of total sales and today stands at historically high levels. Figure 23 shows that the ratio of interest payments to corporate sales is also at very high levels, although it has receded from peaks reached earlier in the 1980's.

FIGURE 22



DEBT AS A SHARE OF SALES
NONFINANCIAL CORPORATIONS

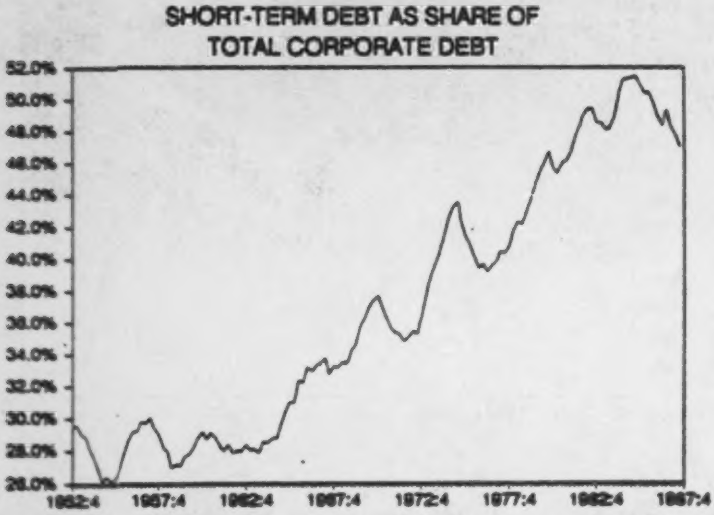
FIGURE 23



INTEREST PAYMENTS AS A SHARE OF SALES
NONFINANCIAL CORPORATIONS

Figure 24 shows how the structure of that debt has changed, with short-term debt assuming a larger share of the total debt burden. Firms must constantly refinance the maturing short-term debt, creating the potential for a crisis if debt comes due during a period of high interest rates and falling demand for the firm's product. Much of the shift in term structure occurred in reaction to the extraordinarily high interest rates in 1981–1982. As an administration official at the time noted, "With interest rates at near-record levels for over three years, business firms have been unable to secure long-term financing at acceptable rates."

FIGURE 24



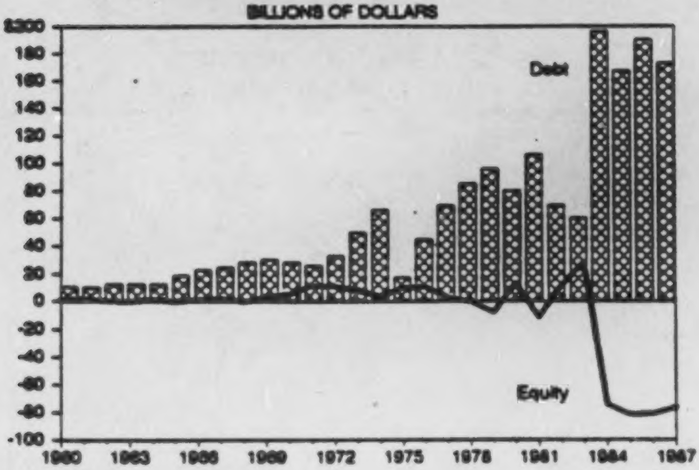
SHORT-TERM DEBT AS SHARE OF TOTAL CORPORATE DEBT

Deterioration is also evident with respect to the shifting roles of debt and equity finance in American firms. Firms have been retiring equity and expanding debt at a rapid pace in the 1980's (Figure 25). In addition, although not indicated in the figure, the wave of corporate stock repurchases announced since the October 19 crash is likely to contribute to a continuation of this trend into the future. This shift in the source of corporate finance leaves corporations more vulnerable to earnings slowdowns, since debt service must be paid while equity returns can be postponed during a downturn.

FIGURE 25

NET ISSUES OF DEBT AND EQUITY BY NONFINANCIAL CORPORATE BUSINESS

BILLIONS OF DOLLARS



If this substantial increase in debt had been used to finance new plant and equipment, there would be less cause for concern, since the new capacity would generate income in the future sufficient to pay the costs of debt service. But, as was noted earlier in this Report, corporate investment in the United States has not increased significantly during the 1980's, while corporate debt has grown dramatically.

FINANCIAL INSTABILITY

The substantial growth of debt in all sectors of the economy is only one aspect of the problems in the financial sector. As Roger Kubarych, Chief Economist of the New York Stock Exchange, told the Committee:

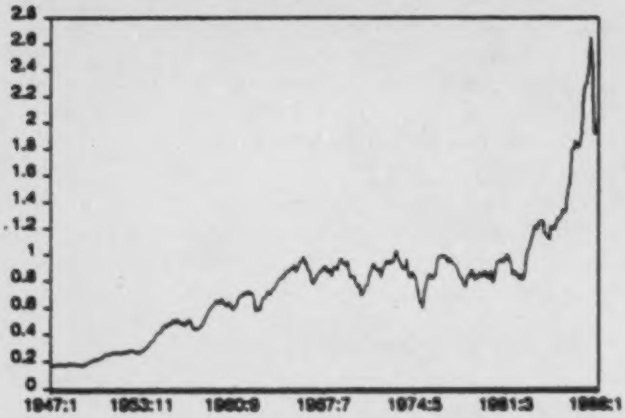
> I think it is undisputable that risks in the financial system have materially increased, not just because of the stock market decline, but because of the volatility that we have seen in virtually every financial market. I call it a "contagion of instability" over the last year . . . it has left a legacy of greater risk, greater appreciation of risk, measured volatility is higher, and just by any textbook analysis the investors are going to demand a higher rate of return to compensate for that risk, and that is going to increase the long-term cost of capital. And over a very long period of time, that is adverse for investment and for long-term growth.

A profound restructuring of the securities markets has taken place over the last five years, involving both a proliferation of new instruments and worldwide market integration.

By almost any measure, stock markets in the United States and worldwide were overvalued by October of last year. Figure 26 shows the rapid acceleration of stock market values beginning in late 1982, a boom which pushed stock prices well above their historic ratios to the earnings of the underlying firms. The subsequent collapse of the stock market provided clear evidence of the fragility of the financial system.

FIGURE 26

THE DOW-JONES INDUSTRIAL AVERAGE



V. The Legacy of Experiment: International Imbalances

In the 1980's, U.S. policies played a central role in creating large imbalances in trade and capital flows. The combination of tight monetary policy and large budget deficits raised real interest rates substantially above historic norms, setting off a chain of events. The high rates attracted foreign savings, helping to push up the exchange rate of the dollar. The rising dollar lowered the price of foreign goods relative to domestic production and helped expand imports while limiting exports. The combination of high real interest rates and deteriorating exports led U.S. goods producers to scale back investment in the United States. By 1985, the unsustainability of this trend convinced both the Treasury and international investors that the rise of the dollar could not continue, and policies were shifted to lower the value of the dollar in international markets.

By pursuing macroeconomic policies that were the mirror image of U.S. policies, other industrial countries also contributed to these imbalances. The combination of restrictive fiscal policy and easier monetary policy kept interest rates abroad below those in the United States and restrained aggregate demand, reducing potential markets for U.S. exports.

THE U.S. TRADE DEFICIT

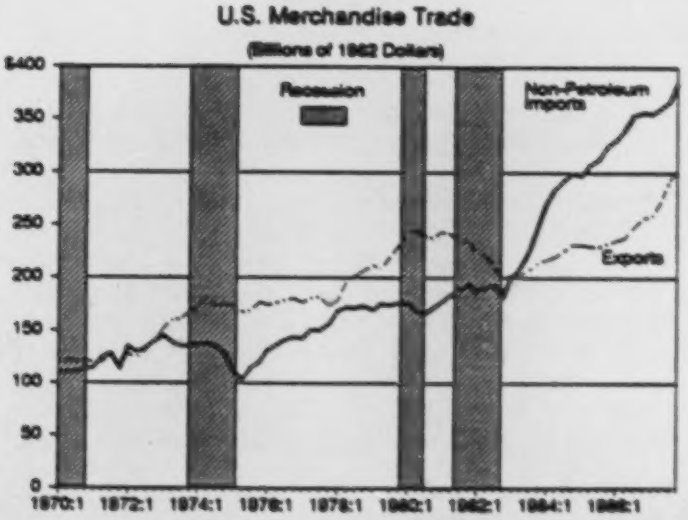
Each of the last six years has set a record merchandise trade deficit. Last year the country imported $171 billion more goods than it exported, according to Census calculations.

In 1980, the United States had a rough balance in its overall trade position, as indiciated by the $2 billion surplus in the current account. On a current-account basis, the $26 billion deficit in merchandise trade was more than offset by the $30 billion in net receipts of international investment income.

By the end of 1987, the current account and merchandise trade deficits had both fallen to roughly 4 percent of GNP. Hardest hit were the manufacturing, mining, and agricultural industries, which lost sales to foreign producers in both the domestic and export markets. The ratio of U.S. real goods production to U.S. goods purchases declined from 100 percent in late 1980 to 91 percent at the end of 1987. This is discussed further in Chapter VI.

The decline during the 1981–1982 recession years was particularly remarkable since the U.S. recession was much deeper than the average abroad. The U.S. trade balance had significantly improved during the 1974–1975 and 1980 recessions as U.S. demand for imports fell more than foreign demand for our exports. This did not occur in the 1981–1982 recession because the dollar's rise hurt U.S. exports and gave an advantage to foreign exports. The decline in the real trade balance aggravated the 1981–1982 recession, just as the recent improvement in the balance has boosted the economy (Figure 27).

FIGURE 27



U.S. Merchandise Trade

(Billions of 1982 Dollars)

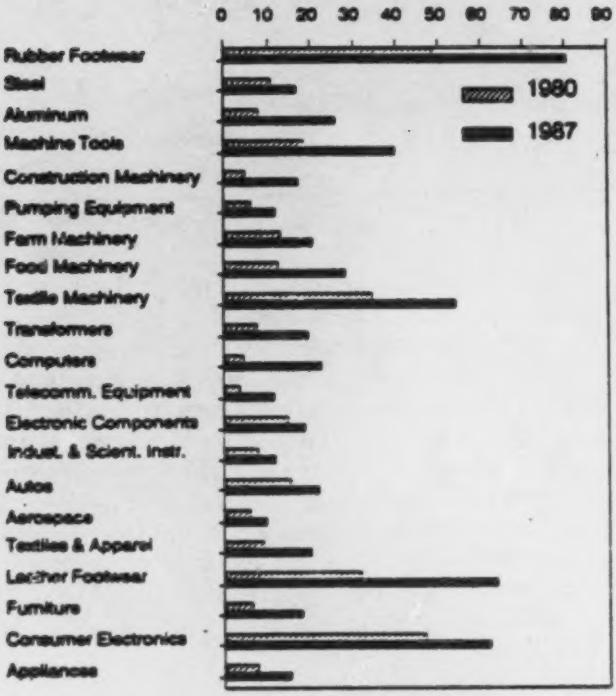
Non-petroleum imports rose 116 percent in real terms from 1980 to 1987 and clearly absorbed the largest share of the rapid growth in U.S. demand for goods during 1982 to 1987. Measured in 1982 dollars, from the fourth quarter of 1982 to the fourth quarter of 1987, U.S. purchases of nondefense goods grew by 27 percent or $359 billion, while imports expanded at a much faster rate, growing 92 percent or $222 billion—from $243 billion to $465 billion. Virtually every goods-producing industry lost domestic market share to imports during this period (Figure 28).

In contrast, U.S. exports fared badly. In volume terms exports declined 15 percent in 1980–1983, regaining their 1980 volume level only by the second quarter of 1986. Between 1980 and 1987, export volume expanded only 15 percent, while import volume grew 75 percent.

FIGURE 28

Import Shares of Major Industries

(Percent of New Supply)



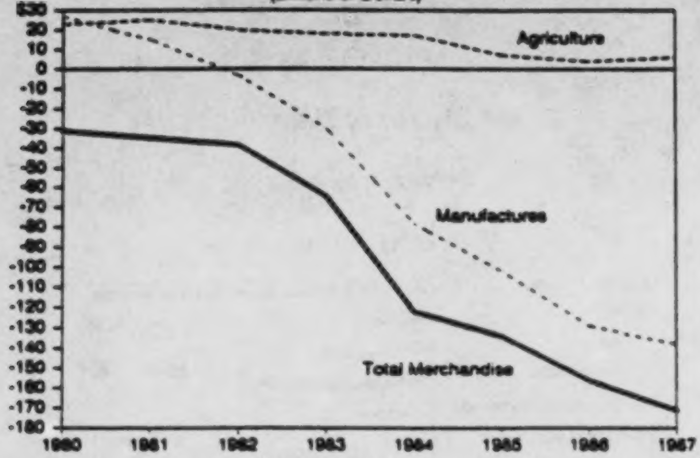
Source: Commerce Department

The manufacturing trade balance dropped from a $27 billion surplus in 1980 to a $138 billion deficit in 1987 (Figure 29). That $165 billion decline more than accounts for the $140 billion decline in the overall U.S. trade deficit during that period.

FIGURE 29

Trade Balances by Sector

(Billions of Dollars)

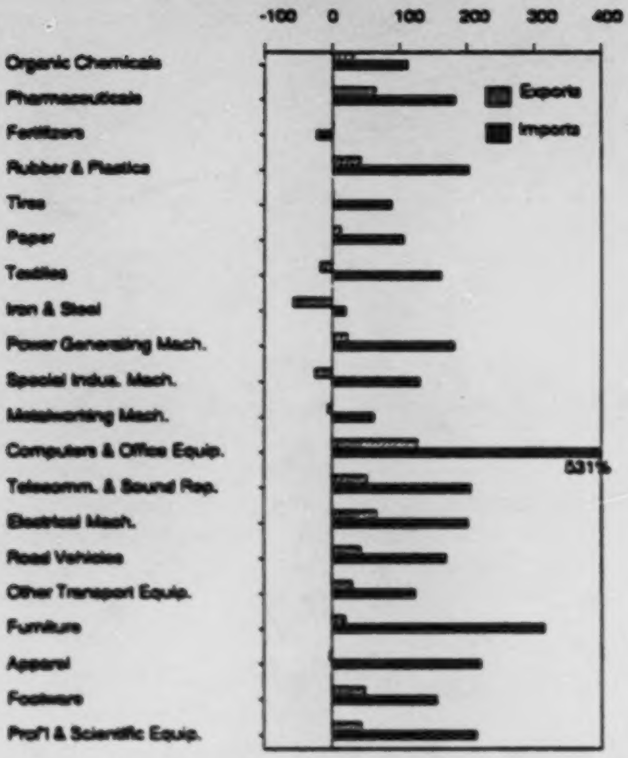


Virtually every manufacturing industry had a substantially lower trade balance in 1987 than it had in 1980. In only one industry—fertilizers—did both the trade balance improve and exports increase faster than imports. Unfortunately, this reflected weakness rather than strength for the U.S. fertilizer industry. Its shipments fell along with imports due to distress in U.S. agriculture while exports rose only 6 percent. Only three other manufacturing categories had higher trade balances in 1987 than in 1980. However, in each case—pharmaceuticals, plastics, and other transport equipment (mostly aircraft)—imports rose at least three times faster than exports during the period (Figure 30).

FIGURE 30

Changes in Imports and Exports from 1980 to 1987

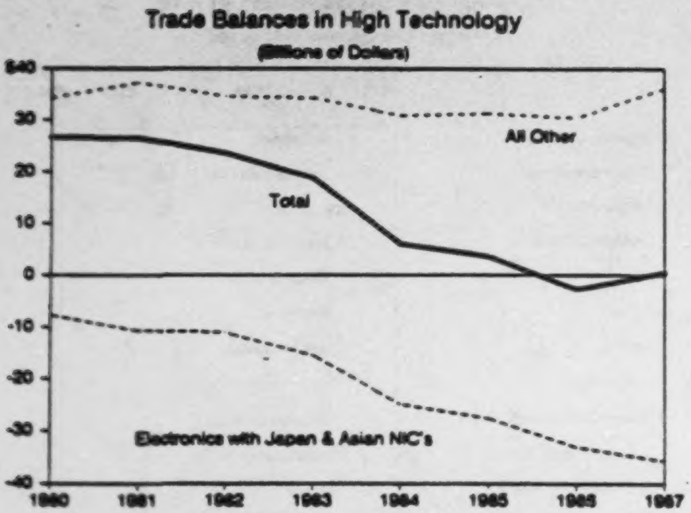
Percent Change from 1980 to 1987



Source: Commerce Department

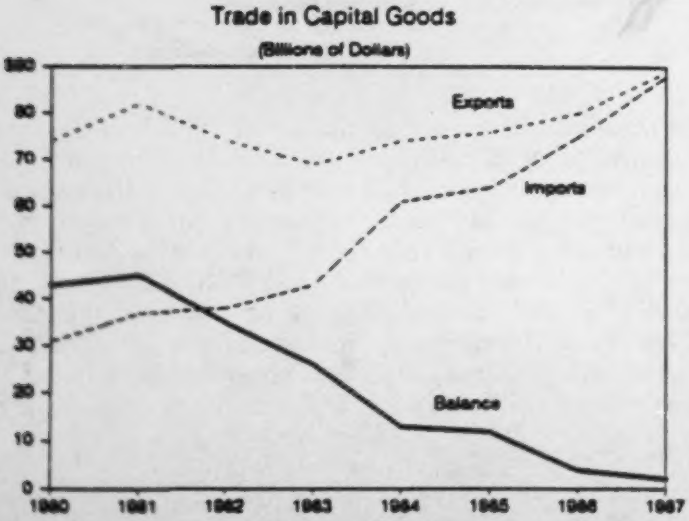
In high technology, the United States in 1980 had exports of $55 billion and imports of $28 billion. In 1980–1987 imports expanded at an average annual rate of 16 percent to $80 billion. Despite the booming world market for high technology products, U.S. exports grew at an average annual rate of 5.7 percent to $81 billion. The U.S. surplus in high-tech trade thus fell from $27 billion to $1 billion over the 1980-1987 period (Figure 31). Electronics trade with Japan and the East Asian newly industrialized countries (NIC's)—Taiwan, Korea, Hong Kong, and Singapore—deteriorated markedly, while the rest of the high-tech trade balance remained relatively stable.

FIGURE 31



In the capital goods category, which is closely related to high technology, imports nearly tripled in 1980–1987, rising from $31 billion to $88 billion. The U.S. surplus in capital goods trade fell over the same period from $43 billion to $2 billion (Figure 32).

FIGURE 32



The trade balance in agriculture declined from a $23 billion surplus in 1980 to a $6 billion surplus in 1987 (Figure 29).

These declines must be set against the rapid increase in oil and petroleum imports in recent years. While falling oil prices have caused a drop in the nominal value of oil and related imports from the 1985 level of $50 billion to $42 billion in 1987, import volume has risen 35 percent over the same period. Energy experts predict that in the future both volume and prices will rise, putting additional pressure on the U.S. trade account.

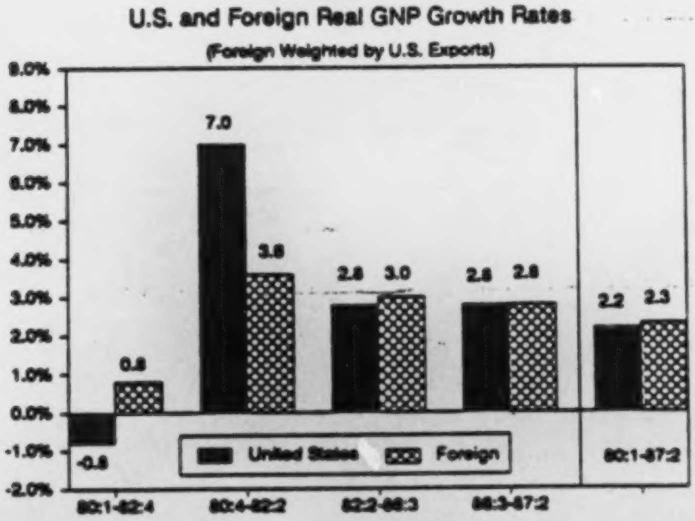
EXPLAINING THE TRADE DEFICIT

The United States now has by far the largest trade deficit of any major industrialized country. A variety of structural factors contribute to the American trade problem:

The more open U.S. market. By most econometric estimates the income elasticity of demand for imports in the United States substantially exceeds that in other countries. No other industrial country has ever permitted a surge of imports on the scale of U.S. imports in the 1980's.

Slowdown in foreign growth. In the 1960's and 1970's, the rest of the world was expanding its output and income much faster than the United States. This, along with a decline in the dollar in the 1970's, boosted demand for U.S. exports and helped them keep pace with imports until 1980. In the 1980's, output and income have increased only marginally more abroad than in the United States. U.S. growth fell behind with the recessions in 1980 and 1981–1982, but caught up with the rebound in 1983–1984. Since mid-1984, however, U.S. and foreign growth have proceeded at comparable rates (Figure 33). When foreign growth does not exceed U.S. growth, U.S. exports tend to lag behind imports into the more open U.S. market.

FIGURE 33


U.S. and Foreign Real GNP Growth Rates

(Foreign Weighted by U.S. Exports)

Rapid improvement in U.S. foreign competitors' technology, skills, and infrastructure for commercial purposes. The United States generally retains a lead in these areas, but there are many specific exceptions and the overall lead is shrinking.

U.S. producers' tendency, when confronted with a major competitive trade threat, to shift to foreign sources of production more quickly than foreign producers. Whether by social legislation (as in Europe) or social convention (as in Japan), foreign producers face major impediments to shutting down local production in favor of sourcing production abroad.

Absent some strong countervailing action by U.S. economic policy, these structural conditions would produce a slow deterioration in America's trade accounts. Even so, they do not provide adequate explanation for the precipitous decline in the U.S. trade balance during the 1980's. This decline is the result of economic policies which, instead of countervailing the structural factors at work on U.S. trade, acted instead to accelerate the decline in America's international position:

U.S. macroeconomic policies produced an overvalued dollar and high real interest rates, encouraging investment and production abroad relative to the United States;

U.S. trade policies failed to open markets abroad for U.S. exports;

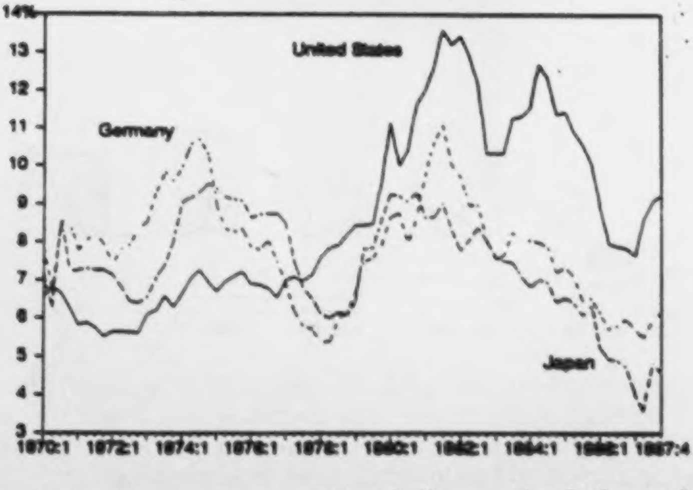
U.S. economic diplomacy failed to support coordinated international actions to improve economic performance among industrial countries, to resolve the Third World debt problem, or to share more equitably the burden of maintaining international security.

The dollar

The combination of tight money and large budget deficits held U.S. interest rates substantially above the rates prevailing in other industrialized countries, creating strong incentives for foreign wealth-holders to place their assets in the United States (Figure 34).

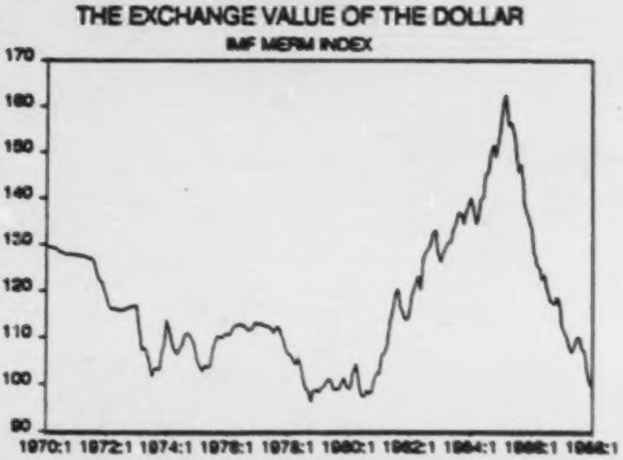
FIGURE 34

Long-Term Interest Rates



The resulting strong demand for dollars raised the value of the U.S. currency to exceptionally high levels. Taken together, these changes produced a radical shift in the exchange value of the dollar (see Figure 35). Rapid appreciation helped to price U.S. goods out of world markets, deepening the recession of 1981–1982 for export-sensitive and import-competing sectors such as agriculture and manufacturing.

FIGURE 35



In 1981 during a hearing on international economy policy, the Under Secretary of the Treasury for Monetary Affairs told the JEC that the administration intended ". . . to pursue a minimal exchange intervention policy." Subsequently the overvalued dollar was welcomed by the administration as a sign of strength, despite the damage it created to key sectors of the economy. Indeed, until late 1985, the administration accepted the rise in the dollar and the concomitant decline in the U.S. foreign trade position of equanimity.

Changes in global capital markets also bid up the dollar, since they took place at a time when it was clear that the result would be large capital inflows into the United States in response to relatively high U.S. interest rates. For example:

In 1983 and 1984, the administration negotiated with the Japanese government for liberalization of Japanese capital markets. While the May 1984 yen-dollar agreement was intended in part to raise the yen exchange rate by increasing both investment in Japan and use of the yen in international transactions, its effect was largely to increase the outflow of long-term capital by Japanese financial institutions.

In July 1984, the U.S. withholding tax on interest paid to foreign investors was removed, further stimulating the inflow of foreign capital. Also in July 1984, the Treasury marketed special securities to be held only by foreigners, a change which made U.S. Treasury and corporate securities much more attractive to nonresidents.

With the trade deficit at $118 billion and climbing, the United States reversed policy in 1985 at the September meeting of the Group of Five and agreed to coordinate policy in an effort to bring down the value of the dollar. The Federal Reserve supported the effort. By late 1986 the dollar had dropped 26 percent from its peak of early 1985. Yet there has not been clear improvement in the nominal trade balance. The volume of exports has increased, but so has import volume and the import share of the U.S. goods market.

In 1986, the United States believed that the dollar's fall had gone far enough, and Treasury Secretary Baker announced the U.S. intention to stabilize the dollar. During 1987, it is estimated that foreign governments bought $100 billion to $130 billion in dollar assets, thereby supplying the bulk of the net $160 billion that the United States borrowed from abroad for the year. Despite this intervention, from the end of 1986 to the end of 1987, the dollar lost 22 percent of its value in terms of yen and 19 percent in terms of German marks.

Failure to change trade structures abroad

Administration policy has generally given low priority to improving opportunities for exports of U.S. goods, focusing instead on services and investment, which hold out little prospect for substantially improving the U.S. external balance. A review of the major categories of U.S. exports documents misplaced priorities in trade negotiation.

Business services. This category runs far below trade in goods. In 1987, the United States had business services exports of $51 billion and imports of $48 billion, for a net balance of $3 billion. But further improvement in this balance is unlikely, since most business services (accounting, insurance, legal work, etc.) generally follow foreign direct investment (FDI). With FDI in the United States increasing more rapidly than FDI by the U.S. abroad, imports of "business services" into the United States can be expected to rise more sharply in the future than exports of U.S. "business services."

Investment earnings. This category, often misleadingly included with business services, no longer presents a significant opportunity for the United States. With the rapid descent into foreign indebtedness, the United States will remain in deficit in foreign investment earnings for the foreseeable future. Moreover, to the extent that the United States may succeed in having restrictions abroad on foreign investment lifted, it may lead to shifting more production out of the United States and further hurt the U.S. trade balance.

Agriculture. In this category, the United States has managed to hold on to a modest export surplus but prospects for a substantial expansion of this surplus under present conditions are not bright. Major producing countries, such as Canada, Brazil, and Argentina, expanded their production in the 1970's to meet growing demand and today compete with the United States for remaining export markets. Expanded productive capacity in countries which were major importers in the 1970's, such as China and India, have made these countries self-sufficient or net exporters. Low world prices to date have not resulted in significant reductions in other nations' productive capacity. Both developed and developing countries see agricultural production as an important contributor to food security and maintaining balance of payments. The European Community (EC) has expanded its export surpluses through an expensive subsidy program which remains substantial despite U.S. negotiators' efforts to curtail it. Finally, no mechanism has been developed to turn the human demand represented by the populations of developing countries into effective economic demand for agricultural products.

Manufactures. This category is the biggest factor in the U.S. trade imbalance. A $27 billion surplus in 1980 fell to a $138 billion deficit by 1987. Most trade analysts agree that any prospect of achieving trade balance in the foreseeable future depends on restoring our trade in manufactured goods. Yet the United States has accomplished little to improve access for U.S. manufactures exports, even with the fast-growing but relatively closed Asian markets.

Inadequate economic diplomacy

Of the serious imbalances confronting the world economy today, the imbalances in trade among major industrialized countries and the persisting problem of Third World debt are among the most significant. As the IMF noted recently:

> The large imbalances on external account remain a major risk in the outlook [for the world economy]. Even though there is now evidence that the current accounts of the three largest industrial countries are responding to the exchange rate changes and policy adaptations that have taken place, on the basis of current policies and exchange rates the imbalances are nevertheless expected to remain above sustainable levels after 1988. A major task for economic policy is thus to ensure that the adjustment process that has been initiated is continued over the medium term.[1]

The World Bank noted in its latest report that the persistence of the Third World debt problem over time has created an unwarranted sense of complacency among policymakers in the industrialized countries.

> The hope that time, policy adjustment by the debtor countries, and support from the global economy would steadily erode the scale of debt problems has been consistently frustrated. In terms in which improvement was looked for most anxiously by creditors and international policymakers—the measure of the debtor countries' creditworthiness—their position has stubbornly failed to improve. In the five years since 1982, no country involved in rescheduling its debts has significantly reduced its debt ratios.[2]

Both of these problems reflect a lack of leadership in the world economy, a role traditionally played by the United States. While the United States remains the world's largest single economy, U.S. policymakers have been slow to recognize that changes in world markets create new needs for effective coordination among major economies to deal with major global problems.

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[1] IMF, World Economic Outlook, October 1987, p. 2.

[2] World Bank, World Debt Tables: Volume I Analysis and Summary Tables, 1988, p. ix.

International policy coordination

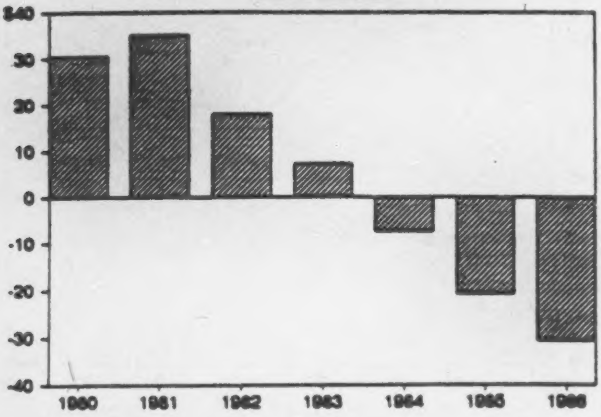
The "go it alone" attitude was reflected in the approach to the economic summits, which began in 1975 as annual meetings of the heads of state of the major industrialized countries to discuss economic concerns. With the advent of floating exchange rates, following abandonment in 1971–1973 of postwar international monetary arrangements, the summit meetings provided a useful forum for the coordination of economic policies among the G–7 nations—the United States, West Germany, France, the United Kingdom, Italy, Canada, and Japan. In particular the summit process helped the industrialized countries respond to the economic shocks set off by the Organization of Petroleum Exporting Countries (OPEC) price increases of 1973 and 1979.

The administration at first rejected calls for coordinated fiscal and monetary stimulus to help bring the industrialized countries out of the 1980–1982 recession, refused to join the other countries in currency market intervention to lower the dollar's exchange rate, and opposed any substantive discussion of a multilateral approach to the Third World debt crisis. While the United States has reconsidered and altered each of these positions, the initial responses have had costs. Prompt and effective coordination of fiscal, monetary, exchange rate, and Third World debt policies would have moderated both the 1981-1982 recession—the deepest since the Depression—and the wide imbalances we face today.

Failure to address the debt crisis in the Third World

The debt crisis surfaced in mid-1982 when Mexico announced that it could no longer meet its interest payments on debt to foreign banks and governments. Since 1982, faced with rising interest rates and interest payments rising faster than exports, more than 40 countries have been unable to meet their normal debt service obligations. In response, the flow of private capital to the debtor countries has virtually ceased. In 1981 the annual net resource transfer from the developed countries to the Third World was $35.1 billion. In 1986, however, the net resource transfer was negative by some $30.6 billion, as the industrialized countries provided $85.7 billion in new loans, but the developing countries were required to pay back $115.3 billion in interest and principal (see Figure 36).

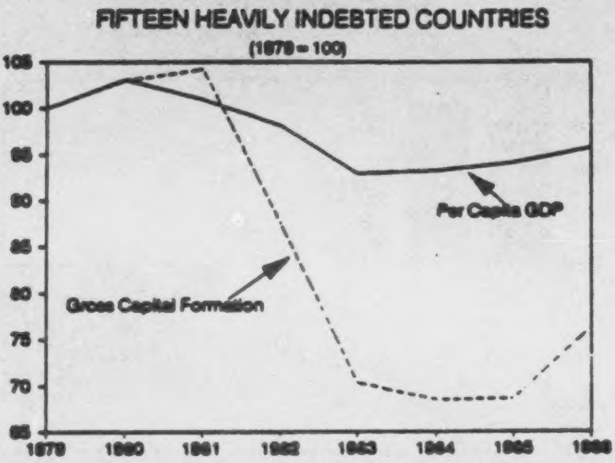
FIGURE 36



NET FINANCIAL TRANSFERS
TO DEVELOPING COUNTRIES
Billions of Dollars

This sudden cutoff of external funding created a crisis for most heavily indebted Third World countries, who were forced to redirect resources from domestic growth to servicing their outstanding debt. To generate the trade surpluses required to pay interest on their debts, they were forced to cut back on imports and boost exports. In most cases imports were cut by scrapping investment projects and reducing consumption, which usually meant slower economic growth as well. Gross capital formation in the 15 most heavily indebted countries—Argentina, Bolivia, Brazil, Chile, Columbia, Ivory Coast, Ecuador, Mexico, Morocco, Nigeria, Peru, Philippines, Uruguay, Venezuela, and Yugoslavia—dropped by 27 percent between 1981 and 1986, while the rate of per capita gross domestic product (GDP) fell by 5 percent (see Figure 37).

FIGURE 37



The damage from these austerity programs was not limited to the debtor countries. Most of the nations in this group had close ties to the United States, so that their policies designed to increase exports while restraining imports had a disproportionately adverse effect on the United States relative to other industrialized nations. As Third World imports shrank, export markets for the industrialized countries contracted. U.S. exports to the 15 most heavily indebted countries dropped from $40 billion in 1981 to $30 billion in 1987, and have still not recovered, causing a loss of hundreds of thousands of American jobs.

The impact on U.S. export of manufactures has been particularly severe. The 15 most-indebted less developed countries (LDC's) took 18 percent of all U.S. manufactured exports in 1981, and generated a trade surplus of $20 billion. By 1986, this surplus had dwindled to a mere $22 million. This $20 billion swing in net trade accounted for 13 percent of the total deterioration in the United States trade position in manufactures.

Responding to the debt crisis

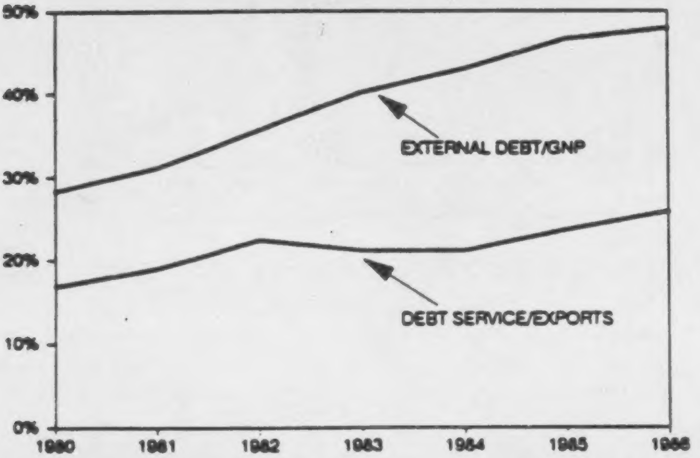
The Federal Reserve and the U.S. Treasury organized a $3.5 billion emergency loan package to provide temporary assistance to Mexico in 1982, and thereafter confined their efforts to keeping the debt crisis from exploding, rather than developing a comprehensive long-term solution to the problem. Except for providing several "bridge" loans on an emergency basis, and coordinating official debt rescheduling through the Paris Club, the administration left to the debtor countries and the banks the much larger problem of sorting out the debt problem.

In October 1985, while continuing to advocate a case-by-case approach, Treasury Secretary James Baker called for a program of $29 billion in new lending by the commercial banks and multilateral lending organizations to the 15 most heavily indebted countries over a three-year period.

Notwithstanding the more constructive approach represented by the Baker Plan, at the end of 1986 the developing countries had external debts amounting to $1 trillion, 90 percent of which was long-term debt owed or guaranteed by their governments. The severity of the problem is indicated by a continuing rise in the level of external debt and debt service payments relative to GNP and export revenues (Figure 38).

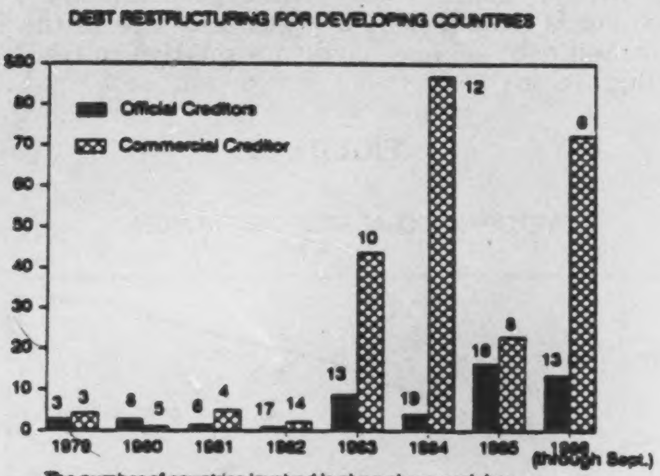
FIGURE 38

DEVELOPING COUNTRIES' DEBT BURDEN



The increasing difficulty of debt servicing since 1982 also shows up in the substantial increase in the amount of rescheduling of debt service payments—a record $103 billion in rescheduling during the first nine months of 1987 (Figure 39). The bleak prospects for several countries to continue meeting their obligations in the future is reflected in the decline in the price of their debts on the secondary market (Table 2).

FIGURE 39


DEBT RESTRUCTURING FOR DEVELOPING COUNTRIES

The number of countries involved is given above each bar.

TABLE 2.—SECONDARY MARKET PRICES OF DEVELOPING COUNTRY LOANS

[U.S. cents per dollar of loan face value] [1]

Country	June 1986	June 1987	September 1987
Argentina	64.00	47.00	37.00
Bolivia	6.00	9.00	9.00
Brazil	75.00	61.00	39.00
Chile	66.00	69.00	58.00
Ivory Coast	74.00	62.00	60.00
Ecuador	63.50	49.00	33.00
Mexico	60.00	56.00	47.25
Nigeria	55.00	29.00	25.00
Philippines	59.00	69.00	59.00
Turkey	97.50	97.00	96.50
Venezuela	76.00	70.00	53.00
Yugoslavia	79.00	75.00	60.00

[1] Bid prices.

Source: Salomon Brothers, Inc., New York, NY.

With the debt crisis well into its sixth year, the global financial system is still at risk from widespread defaults that could be initiated by a slowdown in world trade, rising interest rates, or any of a number of other adverse changes in the global economy.

Although the administration has been slow to recognize this new reality, there have been encouraging signs of progress in recent months, including administration willingness to support a proposal for reducing Mexico's outstanding bank debt which involved replacing existing debt with a lesser amount of bonds whose principal was backed by a special issue of U.S. Treasury debt securities. The very modest response which this plan has received from the commercial banking system suggests broader and more comprehensive solutions for reducing and restructuring the debt of a number of heavily indebted countries may be necessary.

The outline for a more comprehensive approach to the international debt problem has been included in both the House and Senate versions of the trade bill. The congressional approach would involve international negotiations to establish an intermediary debt facility to purchase debt at a discount from the commercial banks and pass the value of the discount along to the borrower in the form of lowered repayment obligations.

In concept, this proposal has much in common with the Mexican debt relief plan supported by the Treasury, but it provides a more comprehensive solution, with a broader base and wider applicability than the Mexican proposal. The congressional approach would link debt reduction to policy reform in the debtor countries, and would call upon countries with large current account surpluses such as Japan and West Germany to play a major role. Proposals very similar to the congressional one are being brought forth with increasing frequency from a number of quarters. The African Development Bank has recently endorsed the creation of an intermediary to purchase and manage the debt of heavily indebted African countries, while the head of a major U.S. financial institution has set out a detailed plan for a multilateral debt intermediary.

Unequal defense burden sharing

U.S. financial contributions to mutual Western defense exceed the contributions of our allies and are, by commonly used measures, disproportionate to relative economic strengths. There is a growing view in the United States that we carry too large a share of the burden of the Western alliance. Significant changes have occurred in the economies of the allied countries since security arrangements were established. Yet the United States continues to shoulder defense responsibilities that were set at a time when U.S. allies were in a weakened state economically. The issue is not the importance of the North Atlantic Treaty Organization (NATO) alliance and the alliance with Japan to the United States, but rather the amounts alliance members spend for mutual security, and whether the burden of defense is shared equitably.

Relative defense spending

The United States, with the largest economy, spends significantly more for defense than any or our allies. This is true not only in absolute terms (obviously to be expected) but also in relative terms. U.S. defense spending as a share of GDP in 1986 (the most recent year for which data are available for all countries) was 6.7 percent, compared to about 3.5 percent for NATO Europe and 1.0 percent for Japan. For the largest European countries, the shares of GDP were 3.9 percent in France, 3.1 percent in West Germany, and 5.0 percent in the United Kingdom.

The disparity of contributions is greater when defense spending is compared on a per capita basis. The United States spent $1,155 for defense per capita in 1986. Per capita defense spending for NATO Europe was $318 (weighted average) and for Japan was $163. Table 3 show defense spending as a share of GDP and per capita for the United States and our allies in 1986 The 1987 Department of Defense (DOD) report on burden sharing contains indicators of each allied country's ability to contribute. For example, the U.S. economy accounts for 48 percent of the GDP of all the NATO countries plus Japan, but the United States contributes 70 percent of the defense spending of all those countries. The United States contains 32 percent of the population of the NATO countries plus Japan, but contributes 40 percent of the active defense manpower of all those countries. In part, these disproportions are a result of the U.S. military buildup in the 1980's. The sharp increases in U.S. defense spending during this period widened the differences with our allies. However, the pattern has been generally the same for decades. Table 4 shows defense expenditures as a percentage of GDP for the United States, NATO, and Japan since 1955. The relative contributions by this measure have been remarkably constant throughout the period. The U.S. share has always been about twice as large as NATO Europe, and Japan has always been at about 1 percent.

TABLE 3.—1986 DEFENSE EXPENDITURES AS A PERCENTAGE OF GDP AND PER CAPITA

[In U.S. dollars]

Country	Percent of GDP	Per capita
United States	6.7	$1,155
NATO allies:		
Belgium	3.0	346
Canada	2.2	308
Denmark	2.0	322
France	3.9	511
Germany	3.1	453
Greece	6.1	232
Italy	2.2	235
Luxembourg	.9	145
Netherlands	3.1	365
Norway	3.1	519
Portugal	3.2	90
Spain	2.0	113
Turkey	4.8	53
United Kingdom	5.0	488
Non-U.S. NATO weighted average	3.3	318
Japan	1.0	163

TABLE 4.—1986 DEFENSE EXPENDITURES AS A PERCENTAGE OF GDP, UNITED STATES, NATO, AND JAPAN 1955–86

Country	1955	1960	1965	1970	1975	1980	1986
United States	10.0	8.9	7.4	7.7	6.0	5.1	6.7
Non-U.N. NATO average	4.5	4.1	3.8	3.1	3.2	3.0	3.3
Japan	1.0	1.1	.9	.8	.9	.9	1.0

Allied contributions

These facts are not presented to minimize allied contributions, which are very substantial and form a vital part of Western alliance mutural defense. In addition, our allies argue with some justification that their contributions are not fully captured in the quantified measures most often used. The use of conscription in West Germany and most other countries reduces defense spending because conscripts are paid below-market wages. Europeans maintain that as a result European manpower is more cost effective, and there is a larger trained reserve manpower pool than there would be with an all-volunteer force. West German contributions to the maintenance of troops in Berlin, and the land and facilities made available free by West Germany and other host countries to U.S. overseas forces are also not included in quantified measures. There are also the social and psychological costs that flow from the use of one's territory by alliance forces. Military exercises sometimes result in accidental deaths and damage to property.

Further, our allies point out that their expeditures for economic development assistance for the poorer nations are greater collectively than U.S. expenditures, and most of them make contributions which are substantially greater as a share of GDP than for the United States (see Table 5). The figures for development assistance contained in the recent DOD report on burden sharing and in reports of the Organization for Economic Cooperation and Development (OECD) confirm that U.S. spending as a proportion of GPD is less than half that of France and West Germany, and below that of Japan, the United Kingdom, and several other European countries.

Nevertheless, these factors do not change the basic facts about burden sharing, since expenditures for foreign economic aid are relatively small. The second column in Table 5 shows economic assistance as a percentage of GDP among the NATO countries. In most countries, the share is less than 1 percent and for all the non-U.S. NATO countries the weighted average is 0.5 percent. The United States, West Germany, the United Kingdom, and Japan all fall below the average, with the United States the lowest at 0.2 percent.

TABLE 5.—DEFENSE AND ECONOMIC ASSISTANCE COMBINED, IN PERCENTAGES OF GDP, 1986

Country	Defense expenditures	Economic assistance	Combined effort and expenditures	U.S. = 100
United States	6.7	0.2	7.0	100
NATO allies:				
Belgium	3.0	0.5	3.4	49
Canada	2.2	.5	2.7	39
Denmark	2.0	.9	2.8	41
France	3.9	.7	4.6	66
Germany	3.1	.4	3.5	51
Greece	6.1		6.1	87
Italy	2.2	.4	2.6	38
Luxembourg	.9		.9	14
Netherlands	3.1	1.0	4.1	59
Norway	3.1	1.1	4.3	61
Portugal	3.2		3.2	46
Spain	2.0		2.0	28
Turkey	4.8		4.8	69
United Kingdom	5.0	.3	5.3	76
Non-U.S. NATO weighted average	3.3	.5	3.7	54
Japan	1.0	.3	1.3	19

Source: Congressional Budget Office.

According to estimates of the CBO, taking account of the costs of conscription, the value of land made available to foreign troops, and contributions to forces in Berlin increase West German defense spending as a share of GDP from 3.1 to 3.7 percent. Adjustments for other countries would be even less significant. By the same token, adding foreign economic assistance to defense spending figures does not make a major difference because economic aid is so small compared to defense spending. Table 5 shows the effects of combining the two types of expenditures in percentages of GDP.

Japan's relatively low level of defense spending is a consequence of the understanding following World War II that it would not use military force as an instrument of national policy. The 1 percent of GNP ceiling was adopted by the government in the mid-1960's and reaffirmed in 1976. In the late 1970's, Japan agreed to assume the costs of improving facilities for U.S. forces and a larger portion of the expenses of Japanese employed by U.S. forces at the total cost of $770 million. Last year, Japan also announced a new policy of basing future defense spending on a determination of need rather than on a limited percent of GNP. It is doubtful, however, that Japan's defense spending will substantially exceed 1 percent of GNP in the foreseeable future.

As shown above, our major trading partners spend much less for defense than we do. In addition to efforts to close the gap there are other ways in which they can contribute to the security interests of the Western Alliance. A balanced approach to Western security requires greater attention to the needs of the international economy. Japan and West Germany, very strong trade surplus countries, are in a position to make larger contributions to world economic growth. They could add significantly to Western security by joining in efforts to address the problems of development assistance and Third World debt.

THE LONG-TERM CONSEQUENCES: AMERICA AS A DEBTOR NATION

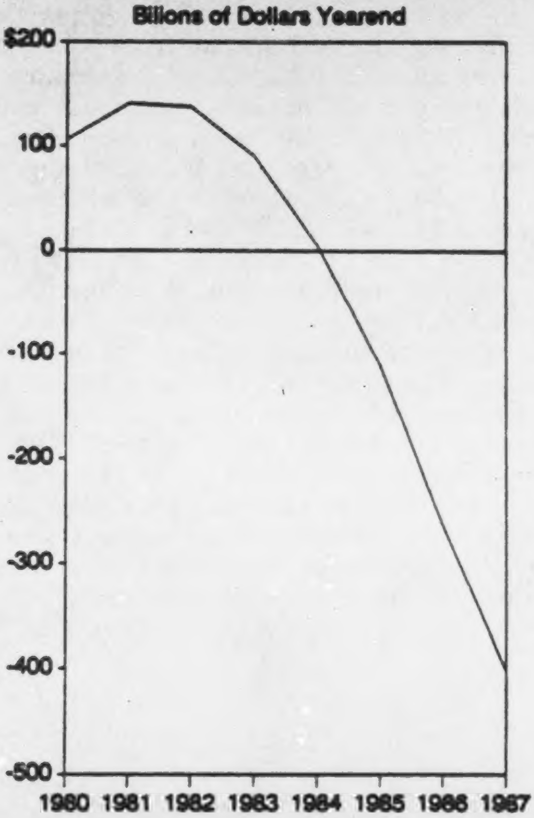
The factors outlined above help to explain the rapid deterioration in America's trade account during the 1980's. By itself, this deterioration is a serious problem for American producers, but much of its long-run significance as a problem for the U.S. economy comes from the fact that the growing trade deficits have been financed by borrowing from abroad at an extraordinary rate.

Consistent with its position as the world's strongest industrial nation, the United States generally maintained trade surpluses or balance between World War I and the mid-1970's. During the latter half of the 1970's, the country continued to run a surplus on current account, despite the appearance of deficits in the merchandise trade account. Earnings from overseas investments more than compensated for the merchandise trade deficits.

As a result of these current account surpluses, the United States by 1981 had built up assets abroad officially estimated at $140 billion more than assets held by foreigners in the United States. By the end of 1987, the U.S. net asset position had deteriorated by roughly $543 billion, leaving a foreign debt of approximately $402 billion (Figure 40).

FIGURE 40

Net Asset Position of the United States



Proponents of current policies have offered several interpretations of the unprecedented swing: (1) that official figures overstate the extent of our net indebtedness; (2) that foreign asset holdings consist of equity investments as well as debt investments, and the equity portion is a vote of confidence in America by foreign investors; (3) that foreign borrowings have been used to strengthen U.S. investment and thus contribute to the strength of the economy in the future; and (4) that our current foreign debt is small relative to our GNP and ability to service the debt through exports.

Do official figures overstate net indebtedness? While there is some validity to the argument that official estimates undervalue U.S. equity investment abroad, these same undervaluations would apply to prior years when we were a net creditor nation. Thus while the absolute size of the U.S. net debt may be open to question, the amount of deterioration in that position and the shift from creditor to debtor status is not. We are on a path which will result in the accumulation of hundreds of billions of dollars of additional foreign claims against future income.

Does foreign lending indicate confidence in the Nation's future? Equating the Nation's deteriorating net external asset position with a company selling stock to finance its growth rests on a misperception of the allocation of foreign asset holdings in the United States. As Figure 41 shows, foreign investment in the United States is increasingly and overwhelmingly concentrated in debt instruments, not equity or direct investment.

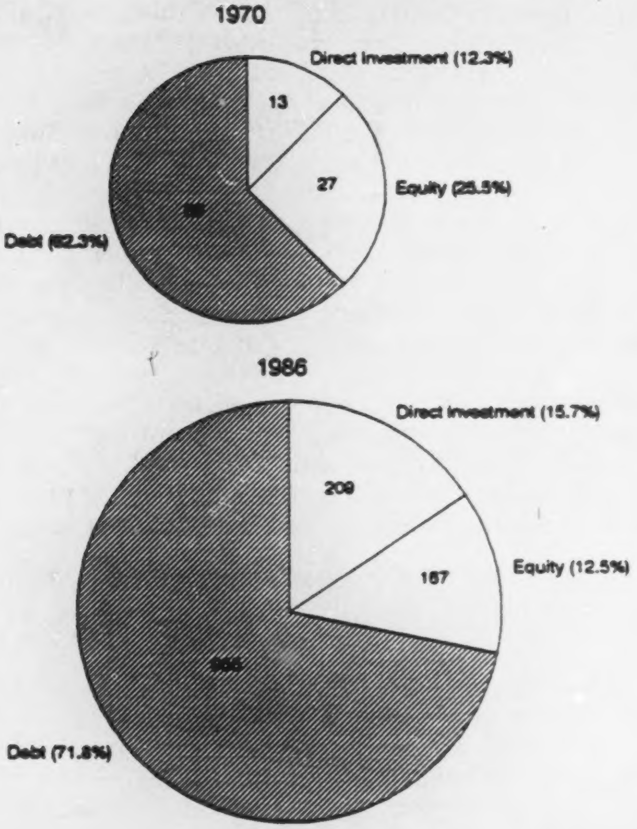
In addition, for more than a year debt funds flowing into the United States have come primarily from foreign governments hoping to stave off adverse financial and exchange-rate repercussions of insufficient private lending, not from private investors. Since the October 19 drop in the stock market, foreigners have actually become net sellers of stock on U.S. exchanges. In the fourth quarter of 1987, foreign investors were net sellers of U.S. corporate equities by a record $7.2 billion, following a rise of $5 billion in the third quarter.

Does foreign lending help sustain investment? Foreign investment has helped to finance both investment and consumption in the United States, if not directly in the form of equity investments or consumer loans, then indirectly, by reducing pressure on domestic savings to finance the entire range of business and consumer borrowing. Whether investment in the United States has remained higher than would otherwise have been the case over the past seven years as a result of foreign capital inflow is doubtful, since fiscal deficits might well have been reduced in the absense of foreign borrowing. In any case, as noted earlier, foreign borrowing has not been used to increase the overall rate of investment relative to consumption.

FIGURE 41

Foreign Assets in the United States

In Billions of U.S. Dollars



As noted elsewhere in this Report, net investment as a share of net national product in the United States has declined during the 1980's, at tthe same time that foreign borrowing increased. Last year, net foreign borrowing was significantly larger than net capital investment in the American economy, meaning that foreign claims on furutre output increased faster than the capital base which will be needed to generate the future output. This pattern cannot be considered a blueprint for stengthening the American economy in the future.

Is the debt obligation small relative to GNP? While the United States has a smaller external debt relative to GNP than countries such as Canada and Australia, this is no cause for complacency. The United States decline into debtor status has taken place at a stunning pace, and the debt will continue to grow for the foreseeable future.

Finally, the question also does not take into account the potential future costs of the obligation. Concern about external indebtedness arises not only from the annual servicing costs on the old debt, but also from the annual borrowing requirements created by this debt. The United States already must borrow substantial sums simply to cover its deficit in merchandise trade. As long as merchandise trade is in deficit, the United States will need to borrow additional sums to cover the interest payments on its current foreign debt obligations. As our net indebtedness increases, interest payments to foreigners will add to the annual external deficit, thus increasing future foreign borrowing requirements.

Each year the current account balance is negative, the United States will add to its net external debt by the amount of the deficit. Even optimistic projections for the trade deficit assume current account deficits well into the 1990's, with a corresponding rise in the net external deficit and net interest payments each year. The external debt will continue to rise significantly over the next several years, and create the need for a significant merchandise trade surplus to balance the growing deficit on interest payments. The fact that the United States has not posted a surplus on merchandise trade since 1975 suggests the magnitude of the required turnaround.

The external debt also limits our ability to manage the economy over the intermediate term, and reduces our influence in international affairs. As a substantial debtor in need of further credit, the United States cannot be indifferent to the views of external creditors when formulating economic or other policies.

VI. THE LEGACY OF EXPERIMENT: DOMESTIC IMBALANCES

A fundamental legacy of the 1980's is the buildup of extraordinary macroeconomic imbalances which distort the U.S. domestic economy and strain the international trading system. These imbalances reflect a macroeconomic policy which has engaged in massive borrowing from both internal and external sources. They are not sustainable, however, and to a significant degree the process of correction will define the course of the Nation's economic policy for the remainder of the century.

The effect of simultaneous application in the early 1980's of strong fiscal stimulus and monetary restraint was to produce economic performance slightly below average, according to aggregate measures, and at the same time to cause substantial shifts in the pattern of economic activity. These shifts are especially evident with respect to manufacturing and agriculture.

Several trends have contributed to a pattern of growing sectoral imbalance, including the overvalued dollar and the soaring trade deficit, which seriously damaged the traded-goods sector of the economy while stimulating the non-traded goods sector; and the huge fiscal stimulus concentrated heavily in the defense sector, which contributed disproportionately to defense-related industries.

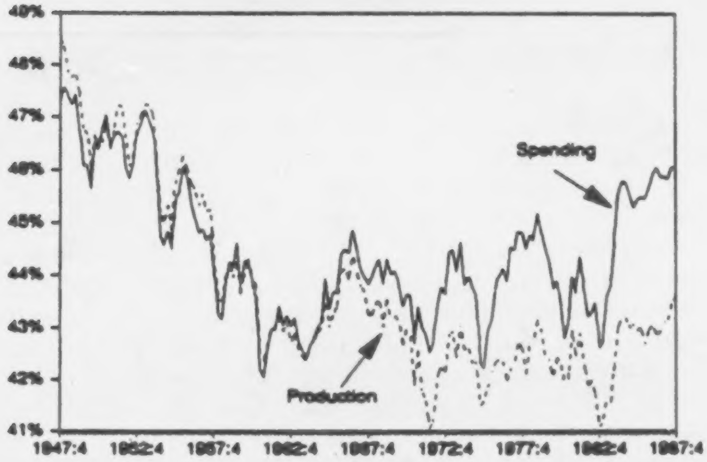
MANUFACTURING

The sector most seriously affected by the monetary-fiscal policy mix have been trade-sensitive industries with high fixed costs. Companies in these industries (principally manufacturing) were priced out of foreign and domestic markets in the early 1980's by the overvalued U.S. dollar and found it difficult to raise productivity through new investment because of the unusually high and persistent real interest rates in this country.

Defenders of current economic policy point to statistical showing that manufacturing has not declined as a share of U.S. output over the decade of the 1980's as a way of proving that the trade deficit has not had a particularly adverse impact on this sector of the American economy. But Figure 42 demonstrates that this argument misses the point. Manufacturing output as a share of U.S. production of goods has remained relatively constant, but U.S. spending on goods has risen during the 1980's. As a result, the share of goods purchased by U.S. consumers which are made by U.S. producers has declined markedly during the period.

FIGURE 42

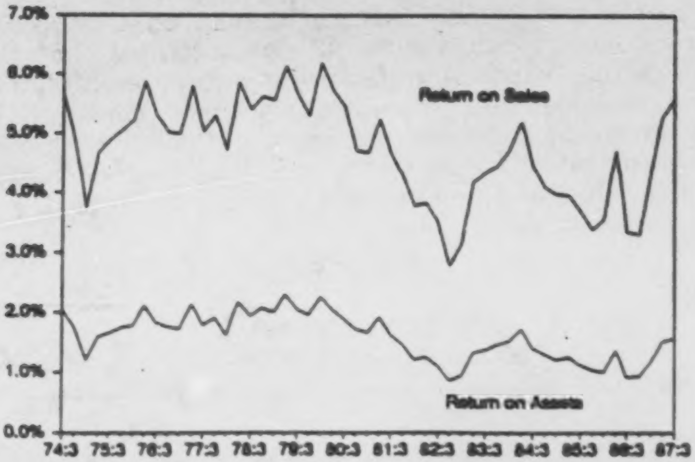
SHARE OF GOODS IN U.S.
PRODUCTION AND SPENDING



These pressures adversely affected both profitability and new investment in the manufacturing sector. Figure 43 shows the declining rates of return in manufacturing, measured both in terms of return on sales and return on assets. Given the low rates of return, the sharp fall off in the rate of growth in the net capital stock in manufacturing appears to reflect a natural market reaction to low profitability in this sector (Figure 44).

FIGURE 43

RATES OF RETURN IN MANUFACTURING

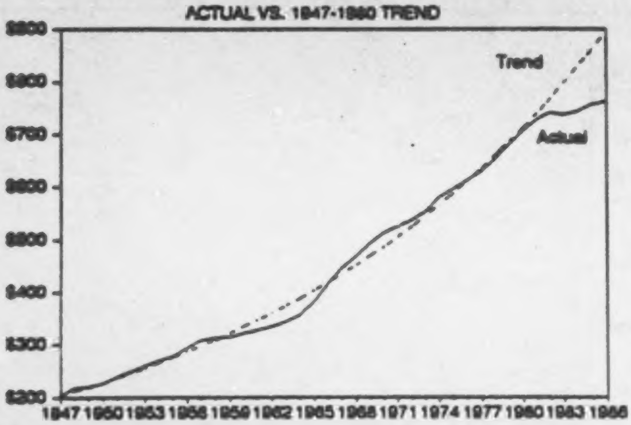


The deceleration of capital stock growth in manufacturing is among the most troubling legacies of the recent international imbalances. In comparison with other industrialized countries, the United States has for many years had a lower rate of investment. Figure 45 compares gross fixed capital information as a share of GNP for the United States, Japan, West Germany, and the United Kingdom, a comparison which shows the poor relative performance of the United States. Since the data are in gross terms, they do not capture the significant decline in net investment in the United States during the most recent period. The fact that the United States has remained weak in gross investment raises concerns about the ability of the American economy to compete in world markets in the future.

FIGURE 44

THE NET CAPITAL STOCK IN MANUFACTURING

ACTUAL VS. 1947-1980 TREND



Despite the sharp falloff in investment, productivity growth is sometimes cited as evidence that the pressures created by the overvalued dollar and the trade deficit have had a salutary effect on the organization and efficiency of American manufacturing. While there has been substantial productivity growth in manufacturing, available data suggest that much of this improvement may have come primarily from closing older and less efficient plants rather than building new, modern, internationally competitive ones. This has adverse implications if export capacity is to keep pace with export expansion opportunities resulting from a more competitive dollar. Data on manufacturing capacity (i.e., maximum output possible from the existing factory base) which are collected by the Federal Reserve Board show that the rate of expansion of capacity in U.S. manufacturing hit a 30-year low in 1984, and has recovered only slightly in the years since (Figure 46).

FIGURE 45

REAL FIXED CAPITAL FORMATION

AS A SHARE OF REAL GDP

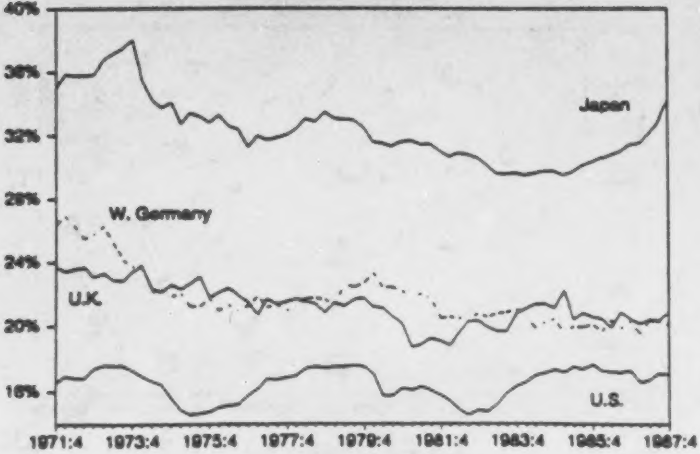
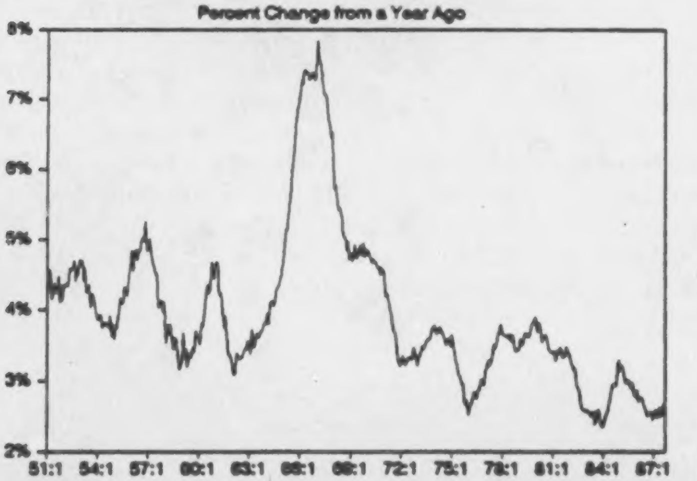


FIGURE 46

GROWTH IN MANUFACTURING CAPACITY

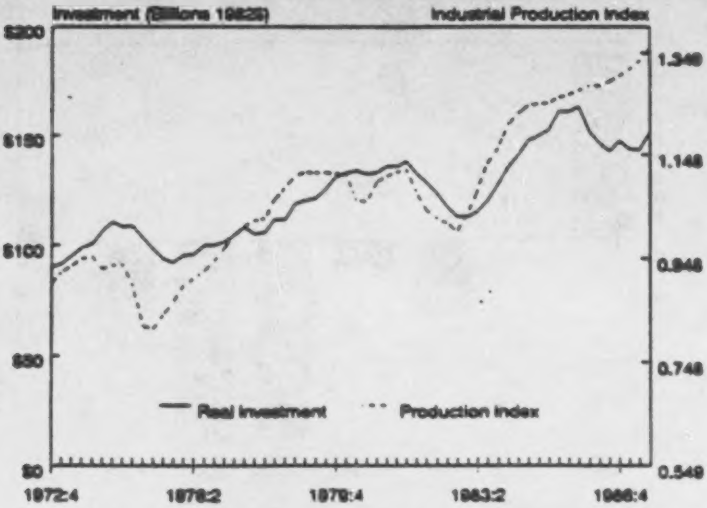
Percent Change from a Year Ago



This is consistent with evidence that American manufacturing firms are reluctant to expand investment in line with rising production, a historical relationship that has not been maintained in the recent recovery (Figure 47). This too raises the question of capacity constraints, given extremely tight capacity-utilization ratios in a number of major industries, and risks a rise in inflation if demands holds up.

FIGURE 47

OUTPUT AND INVESTMENT IN MANUFACTURING



AGRICULTURE

American agriculture traditionally has been one of the most productive sectors of the economy. Research, improved technology, and farmers' investments have led to steadily rising productivity. Today, less than 3 percent of the U.S. population can feed not only the rest of the Nation but millions of people throughout the world. At the same time, the share of income that Americans spend on food has been the lowest in the world, and agricultural exports have contributed positively to America's trade balance.

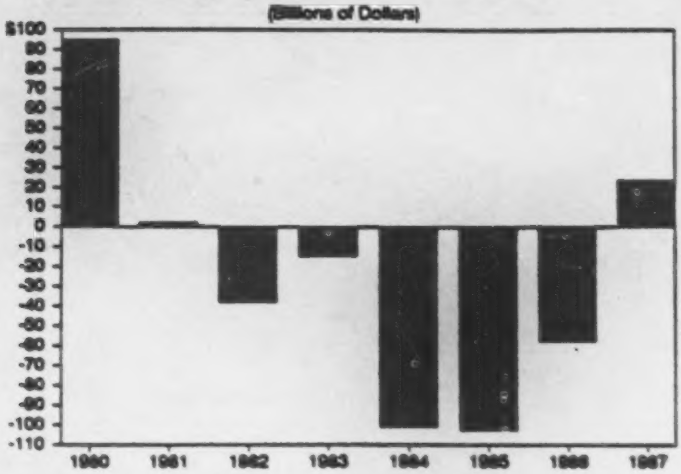
In the 1980's, the American farm sector has faced a major financial crisis, the worst in more than half a century. This crisis forced thousands of farmers to leave the land, reduced the agricultural capital stock, and caused a major drop in the value of farmland. It spread to rural communities and to farm lenders, as the farm population fell by 14 percent from 1980 to 1986. Agriculture's trade surplus plummeted, adding to the Nation's trade deficit.

Figure 48 shows annual changes in farm asset values. From a peak of $1,104 billion in 1981, farm asset values fell 26 percent by 1986. This decline, comparable in percentage terms to the October 1987 stock market break, largely represents a loss of farmers' equity. Between 1981 and 1986, farmers' real wealth declined to the levels of 20 years earlier.

FIGURE 48

Annual Change in the Value of Farm Assets

(Billions of Dollars)

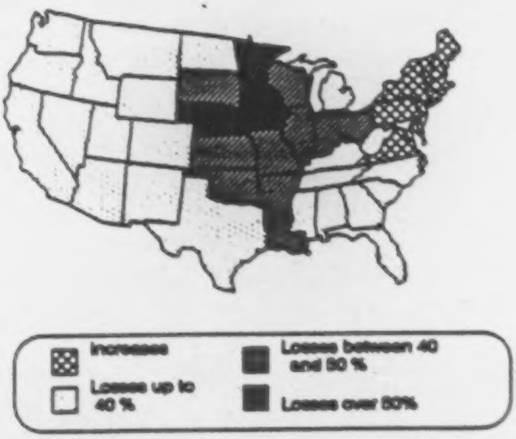


Farmland values fell by more than 33 percent between 1982 and 1986. In this period, the U.S. Department of Agriculture (USDA) reports that three states had declines exceeding 50 percent, while 10 other states experienced declines of over 40 percent (Figure 49).

FIGURE 49

PERCENT CHANGE IN FARMLAND VALUE

February 1982 – February 1987


Increases
Losses up to 40 %
Losses between 40 and 50 %
Losses over 50%

In states where land value increased, nonfarm demands for rural land were very strong. While farm debts declined during the

1980's, much of the drop reflects lender foreclosures, defaults, and more restrictive conditions for new credit.

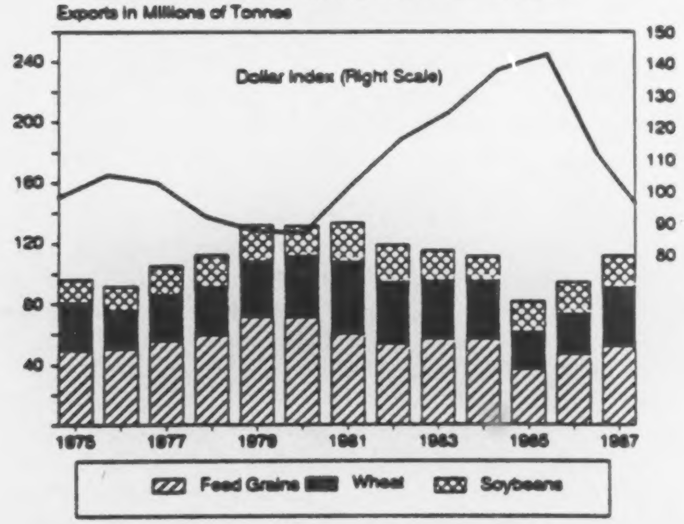
Causes of the financial crisis

While a number of factors contributed to the reversal of farm financial conditions in the 1980's, high interest rates resulting from administration macroeconomic policies were fundamental. High interest rates in the early 1980's contributed to global recession, choking off demand for agricultural exports and making interest payments the single largest component of farmers' payments for crop and livestock production.

More important, high interest rates helped push the dollar up, effectively pricing the United States out of world markets. In 1981, agricultural exports accounted for 28 percent of farm cash receipts, but by 1986 they accounted for less than 19 percent. Figure 50, showing export levels of three major agricultural export products and the exchange value of the dollar, makes clear the consequences of the higher dollar for farm exports.

FIGURE 50

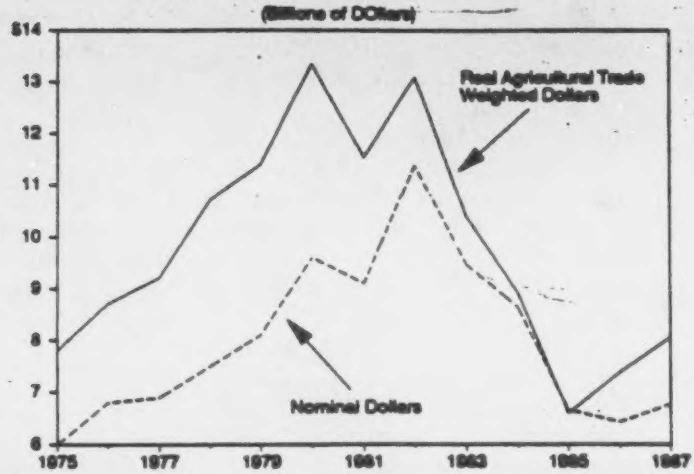
AGRICULTURAL EXPORTS AND THE DOLLAR



Import barriers of other nations also contributed to the crisis of U.S. agriculture. While the United States clearly has a comparative advantage to these countries in agricultural production, other nations' domestic policies block U.S. exports. Two examples underscore the significance of these policies.

The European Community. Prior to this decade, the EC was a major importer of U.S. agricultural products. After 1982, farm exports to the EC plunged (Figure 51). Import barriers and high internal prices have encouraged agricultural production in the EC. For some commodities, these barriers have raised production so much that the EC now competes with the United States for export markets in them. As a result, the citizens of the EC pay an ever-increasing cost for growing inventories of agricultural products that must then be sold on world markets, depressing prices for other, more efficient producers.

FIGURE 51



U.S. AGRICULTURAL EXPORTS TO THE EC

(Billions of Dollars)

Japan. Japan, which is not self-sufficient in food production, is the largest importer of agricultural products from the United States. However, restrictions on beef, tobacco, citrus, and rice raise food prices for Japanese consumers and cost American farmers export sales. The Japanese attempt to block the importation of products if they can be produced domestically, thereby maximizing the value of domestic farm production—for example Japan allows imports of feed grains for livestock but restricts livestock imports.

The Third World debt crisis affected agricultural exports in at least two ways. Many developing countries, like Mexico and Nigeria, had been significant importers of American agricultural products but faced heavy debt service obligations. As a consequence, they significantly reduced their food and other imports. Although U.S. food aid has increased modestly, it has not offset the lost sales. In addition, debtor countries with significant agricultural potential, like Brazil and Argentina, expanded production both to reduce their dependence on foreign supply and to generate through exports income needed to meet their external obligations.

Effects on farmers

According to measures of financial stress developed by the Federal Reserve, the percentage of commercial farmers in severe financial difficulty declined from 17 percent in 1985 to 12 percent in January 1987. The drop over three years reflects steadily growing indebtedness and failure rather than farms returning to financial health. The decreasing numbers of farmers indicate that it is difficult for farmers to recover once they weaken financially. Roughly a third of the farm operators at the beginning of the 1980's have either seen their farm in jeopardy or lost it. Even those still in reasonable financial condition have seen their equity significantly eroded.

Though overall losses in agriculture are severe, USDA data suggest that certain groups and regions have borne a disproportionate share of these losses. Families who took on large initial amounts of debt in the 1970's when land was expensive have suffered most, as have farmers in the central and southeastern regions of the country. Cash crop farms, including producers of wheat, corn, soybeans, and other grains, have the greatest number of farms in financial difficulty. Notably this type of farm is most dependent on export sales.

Individuals wishing to become farmers now face increased difficulties, given farming's requirement of stable long-term financing. Though land prices have fallen, it has become harder to obtain financing for farm purchases. Lenders now require higher down payments and impose more stringent repayment terms than previously. In the absence of affordable financing, farm ownership may soon become the prerogative of the wealthy.

The depressed state of agriculture has led farmers to cut back on investment in equipment. Table 6 shows that net farm investment has been negative since 1981. The resulting drop in the capital stock and increasingly obsolete technology reduces American agriculture's ability to compete in global markets and could mean higher domestic food prices.

Impacts beyond the farm gate

The farm crisis has severely affected communities serving farm families. With growing inventories and reduced production, farmers have shipped a smaller volume of output and reduced purchases of fertilizer, chemicals, and equipment thereby reducing local business sales. The decline in farm asset values reduced the tax base of many rural communities at the same time that they faced increased demands for social services. Limited revenues in rural communities have also resulted in decaying physical infrastructure, particularly roads and bridges, which are vital to the movement of agricultural commodities.

TABLE 6.—CAPITAL FORMATION IN U.S. AGRICULTURE, 1975–86 EXCLUDING HOUSEHOLDS

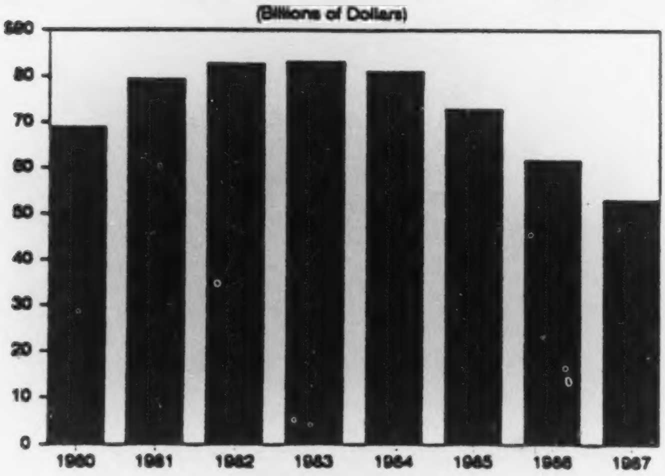
[In millions of dollars]

Year	Gross investment	Depreciation	Net investment
1975	$12,384	$10,604	$1,780
1976	13,968	11,794	2,174
1977	15,015	13,166	1,849
1978	17,948	14,348	3,600
1979	20,075	16,297	3,778
1980	17,982	17,847	135
1981	16,846	19,612	−2,766
1982	13,261	20,148	−6,887
1983	12,738	19,918	−7,180
1984	12,521	19,213	−6,692
1985	9,615	17,427	−7,812
1986	8,559	15,849	−7,290

The decline of domestic farm investment as well as the overvalued dollar caused many manufacturers of farm equipment to become unprofitable, to cease operation, or to be bought out. According to the Commerce Department, there are only two major tractor manufacturers left in the United States, down from 7 in 1982, and 85 percent of the tractors sold domestically are currently imported.

Lenders to farmers have been severely hurt since 1981 and will continue to experience significant losses in the future. As noted in the Committee's Report last year, the Farm Credit System lost over $4.6 billion in 1985 and 1986 and saw its loan volume decline by over $1 billion a month (Figures 52 and 53). The rapid rise and subsequent fall of interest rates in the early 1980's also devastated the FCS since it borrowed short and lent long. The FCS required congressional action in three consecutive years, with the most recent legislation authorizing up to a $4 billion capital infusion to provide the FCS with resources necessary to absorb its losses.

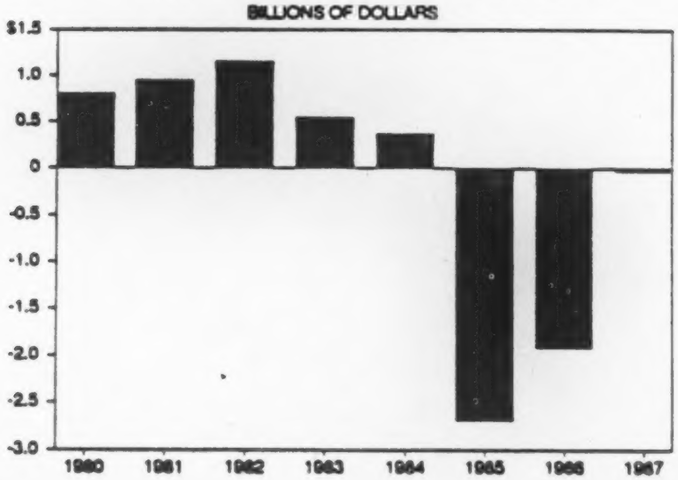
FIGURE 52



Farm Credit Sytems Loans Outstanding

(Billions of Dollars)

FIGURE 53



FARM CREDIT SYSTEM, ANNUAL INCOME

BILLIONS OF DOLLARS

Other lenders, notably life insurance companies and the Farmers Home Administration, have also experienced significant losses. In addition, numerous commercial banks have failed over the last five years and many remain in a precarious position (Table 7). The weakening of the credit infrastructure serving agriculture could prove to be a limiting factor in the economic recovery of the sector.

Agricultural exports

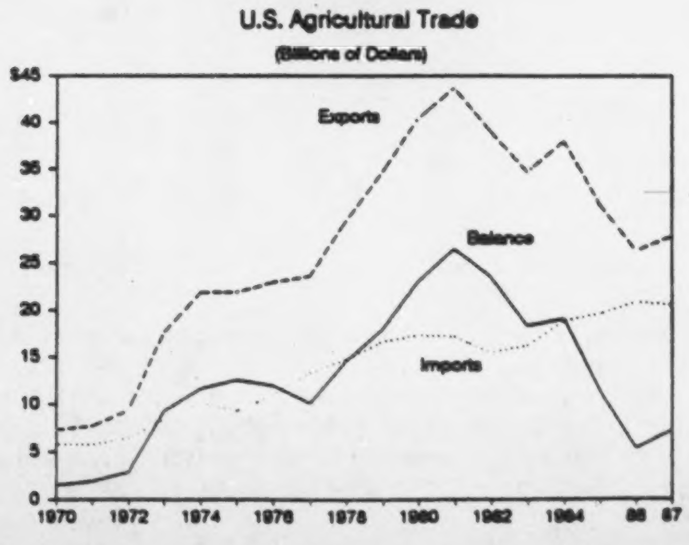
Rebuilding exports is vital to the recovery of agriculture and an important element in dealing with the Nation's trade deficit. Congress has recognized that older export programs, such as Pub. L. 480 and export credit, needed to be supplemented to regain market share and established the Export Enhancement Program. A Presidential Assistant for Agricultural Trade and Food Aid to coordinate efforts to expand exports has also been authorized, as have new aid and trade missions.

TABLE 7.—BANK FAILURES

Year	All banks	Agricultural banks	Percent agricultural banks
1981	7	1	14
1982	35	11	31
1983	44	7	16
1984	78	31	40
1985	118	69	59
1986	144	66	46
1987	202	75	37

Although the dollar's decline began in early 1985, agricultural exports did not show significant recovery for two years. The agricultural trade balance continued to decline in 1985 despite lower market prices for major commodities (Figure 54), and for three months in that year (May, June, and July), the United States actually experienced a deficit in agricultural trade. Exports continued to fall through 1986, despite still lower commodity prices, a decline in interest rates, and a fall in energy prices. Although participation in government programs to limit output increased, weak markets caused inventories to swell, primarily in Federal warehouses.

FIGURE 54


U.S. Agricultural Trade

(Billions of Dollars)

The 1985–1987 lag in agricultural trade reflected problems faced by many U.S. commodity exporters. The dollar declined significantly against the Japanese yen and the German mark after 1985 but brought little response in exports. Lower exchange rates with Europe and Japan did not significantly expand exports to these countries because of their import quotas and other restrictive trade practices. The EC has also continued its export subsidies, despite their growing cost.

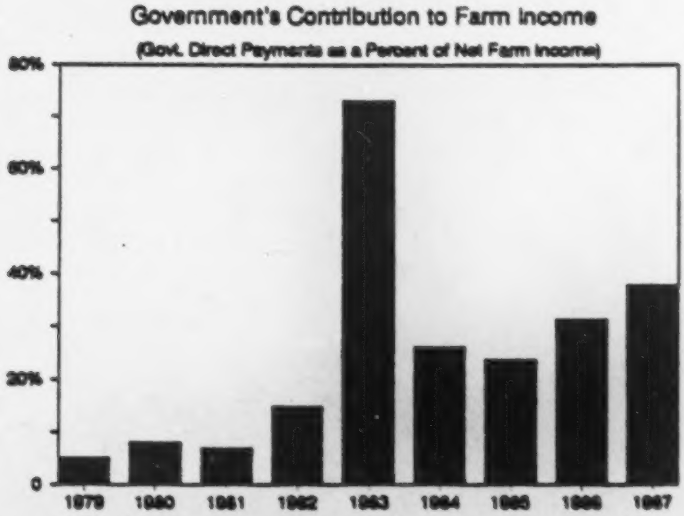
It is important to note that the dollar did not fall significantly against the currencies of other agricultural exporters, so the relative price of American farm products did not decline. As a result of debt problems and managed exchange rates, major Third World exporters, particularly Brazil and Argentina, kept their exports competitive. This limited the ability of U.S. farmers to capture additional markets.

Expanding agricultural exports in the future will require recognition that the terms of trade have changed since the 1970's. Countries that traditionally imported agricultural products have developed domestic agricultural capacity and in some cases are now exporters. Other countries, which have always exported, also expanded their capacity and seek to maintain exports to service their debts. With such new investments in place, this added capacity will likely remain in competition with U.S. agriculture for some time.

The fragility of the recovery

The upturn in farmland prices of the last year has been interpreted as an indication that the agriculture crisis is over. However, the farm recovery has been fueled by government programs. Fully 38 percent of net farm income came from direct government payments in 1987, as opposed to 5 percent in 1979 (Figure 55).

FIGURE 55



USDA forecasts increased production expenses in 1988, while the level of government payments are expected to decline. Together, these imply lower net farm income. Any increase in interest rates or energy costs could also lower farm income.

Exports will have to continue to grow if the farm recovery is to be sustained. Export programs are estimated to have helped sell 20 million tons of grain in 1987, but increased export demand will be required to offset forecast reductions in government payments, including export promotion payments. At the same time that capacity grew in other countries, the United States let its capacity deteriorate by failing to replace depreciating capital. This suggests that, although the United States has a comparative advantage in agricultural production, it may be difficult nonetheless to achieve a rapid major expansion in exports.

At the end of the 1980's, the United States lacks much of the human and physical capital essential to maintain the traditional high productivity of American agriculture, and face the challenge of revitalizing export markets. Current levels of government support have provided breathing space for agriculture, but they do not constitute a long-term solution.

The full cost to U.S. agriculture of the last six years has not yet been totaled, and the legacy of the last half decade will be with us for some time. The imperatives facing farm policy are:

> Rebuilding export markets to assure that the farm sector can maintain its contribution to GNP and the Nation's balance of trade,
>
> Ensuring that excessive high costs of credit do not preclude qualified entrants from having the chance to own a farm,
>
> Replacing that portion of agriculture's capital stock that is obsolete, allowing American agriculture to maintain its historic rate of productivity and technological advance, and
>
> Revitalizing rural infrastructure and providing the level of services farmers require for the efficient production and distribution of agricultural products.

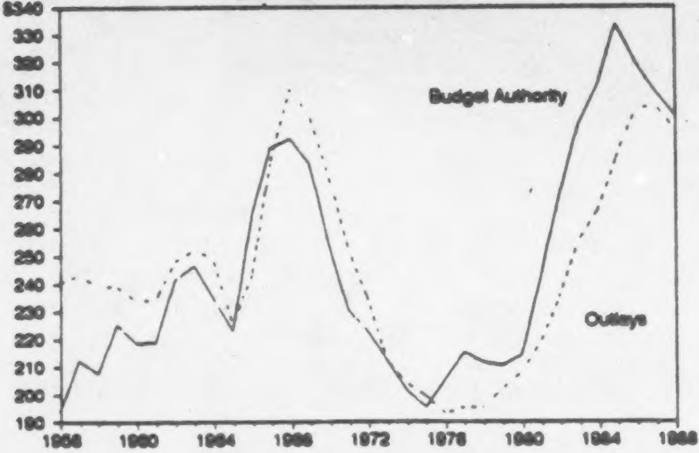
CIVILIAN/MILITARY

A major impact on economic policy during the 1980's was the rapid expansion in military spending. A review of prior defense spending trends will help put the recent buildup in perspective. From 1956 to the beginning of the 1980's, real defense spending was relatively stable, except for the period of the Vietnam War when it peaked. In the peacetime years of this period, real defense outlays in 1989 dollars averaged roughly $240 billion. In 1981–1988, real defense outlays averaged $271 billion per year. Outlays in FY 89 are estimated at $294 billion (see Figure 56).

FIGURE 56

National Defense Budget Authority and Outlays

Billions of FY 1989 Dollars



The trend in level of defense spending is sometimes contrasted with the trend in defense spending as a share of GNP. It is estimated that the defense share of GNP in 1989 will be 6.2 percent, an increase of roughly 25 percent since 1980, when the defense share of GNP was 5 percent. This is lower than the 1956–1965 peacetime period following the Korean War when it was 9.5 percent, but higher than the 5.1 percent of the 1975–1979 post-Vietnam period. What must be kept in mind, however, is that the trends for spending and shares of GNP may diverge, depending on the rate of growth of the economy, and whether there is a recession or negative growth.

Even the steep growth rate of defense spending in 1981–1985 was below that originally intended by the administration. If Congress had not trimmed back budget proposals, defense spending in 1989 would be approximately $446 billion, or $152 billion more than actually will be spent. Financing the additional defense spending would have required a further shift in budget priorities than occurred.

The rapid growth in defense helped contribute to sectoral inequality in two ways. First, military spending growth was not matched by equivalent revenue increases, and this was a principal cause of the rapidly rising Federal deficits which put upward pressure on both the dollar and interest rates. While the defense sector was largely insulated from the effects of both high interest rates and an overvalued dollar, other manufacturing industries were not. Thus the mechanism of funding the military buildup helped to widen growth disparities between defense and nondefense industries.

Second, by virtually any indicator chosen, the distribution of military outlays and hence the direct employment and income benefits are highly concentrated. The bulk of these contracts have gone to a relatively small number of companies, which have a small number of locations for research and production activities. Employment opportunities are also created in a relatively narrow range of occupations and industries. The amount of subcontracts awarded by prime contractors to their suppliers alters the pattern somewhat but does not fundamentally change the high degree of concentration in defense contracting.

The goal of balanced economic development has been further undermined by the rapid buildup of defense research and development (R&D), a subject discussed in detail in a later section of this report. Defense R&D rose faster since 1980 than any other portion of the defense program. In 1987, it accounted for 12.7 percent of the DOD budget compared to 9.6 percent in 1980. However, as defense R&D has tilted toward advanced development of new weapons systems, spending to maintain the defense technology base has steadily declined from 15 percent of overall defense R&D expenditures in 1980 to 8 percent in the FY89 budget request.

VII. THE LEGACY OF EXPERIMENT: INCOME STAGNATION AND INEQUALITY

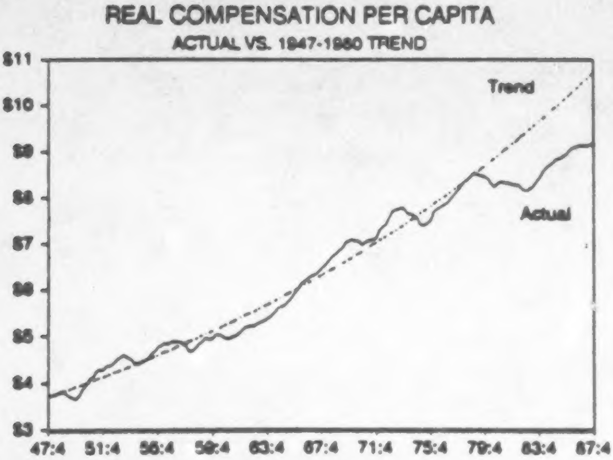
On average, income growth has declerated markedly since the mid-1970's, whlle income distribution has become steadily more unequal. Policies designed to accelerate income growth during the 1980's have largely failed, while other policies have actively fostered the growing inequality of income. Restoring income growth, and improving income distribution, constitute serious challenges to future economic policy in this country.

TRENDS IN THE GROWTH AND DISTRIBUTION OF INCOME

The following charts tell the story of personal income in America by comparing actual growth in real income per capita with the growth trend established during the period 1947 to 1980. The graphs show a period of virtual stagnation in income growth during the late 1970's and early 1980's, followed by a resumption of growth at rates significantly below those experienced in earlier periods.

Total labor compensation per capita, by far the largest component of personel income, showed the most dramatic decline and has experienced the least robust recovery (Figure 57).

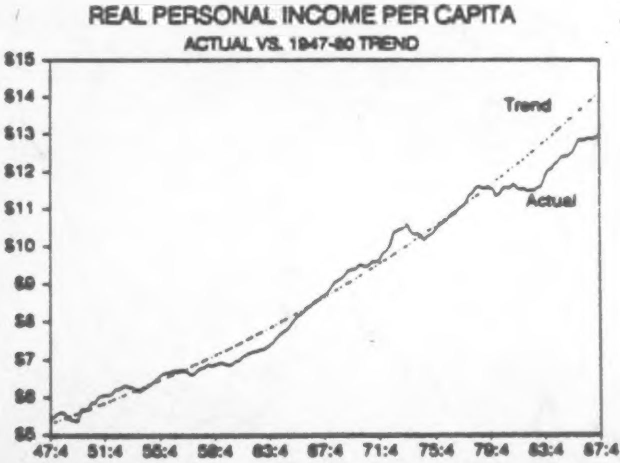
FIGURE 57



REAL COMPENSATION PER CAPITA
ACTUAL VS. 1947-1980 TREND

Personal income, which includes both labor income and income from property, showed somewhat better performance, suggesting that rising property income helped to offset the poor performance of labor income (Figure 58).

FIGURE 58



REAL PERSONAL INCOME PER CAPITA
ACTUAL VS. 1947-80 TREND

In an important sense, however, the preceding figures overstate the growth of income. The data presented so far simply divide income by the number of people in the country, providing a measure of how much income there is in the economy, but little insight about where the income comes from or about how much work it takes to get that income.

Analysis of income components provides further insight into the processes at work in the economy which govern both the growth and distribution of income. As Figures 59 and 60 demonstrate, labor income as a share of personal income has fallen substantially between 1970 and 1987, while income derived from capital (interest, dividends, and rents) has increased markedly.

FIGURE 59

Labor's Share of Personal Income

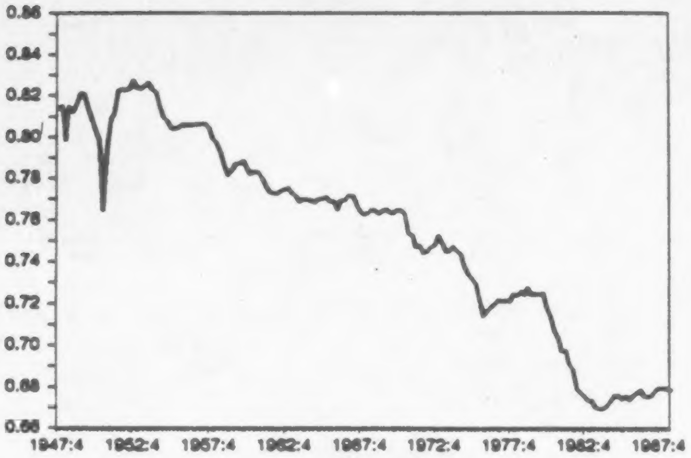
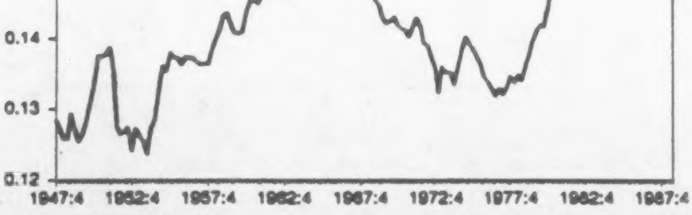


FIGURE 60

Property's Share of Personal Income

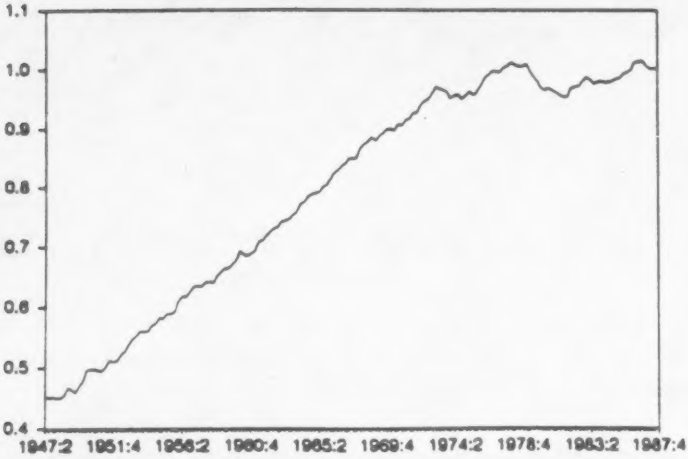


The growing significance of capital income largely reflects the rise in interest rates experienced during the late 1970's and early 1980's. Rising interest rates represent an increase in the rate of return on capital assets, providing increased incomes for those who have capital assets to use as income-generators.

The rate of return on capital assets clearly rose during the 1980's, but not the rate of return on labor. Figure 61 shows the index of real "total compensation" paid to labor for each hour of work. This index includes both cash wages and fringe benefits, and shows that the rate of return for an hour's work in the economy remained essentially flat throughout the 1980's.

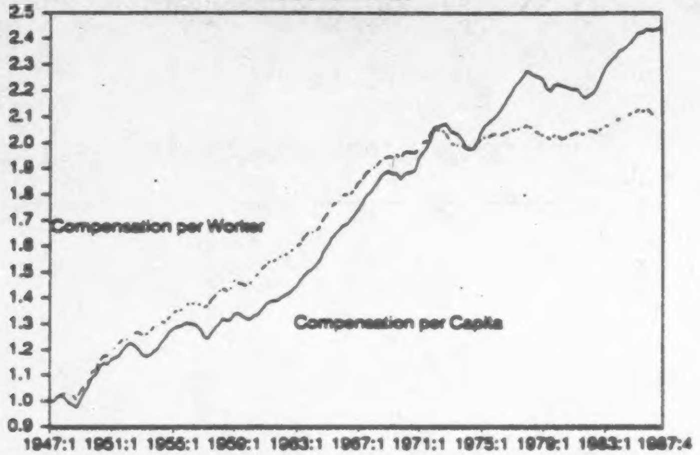
FIGURE 61

REAL COMPENSATION PER HOUR INDEX



At the same time, total labor compensation per capita has risen slowly in the 1980's because a larger fraction of the population is working (see Figure 57). The difference between total hourly compensation per person in the labor force and total compensation per capita is shown in Figure 62, underscoring the fact that the rise in overall labor income during the latter part of the 1980's is almost entirely the result of more people in the labor force.

FIGURE 62



REAL COMPENSATION TRENDS

INDEX: 1947 = 1.00

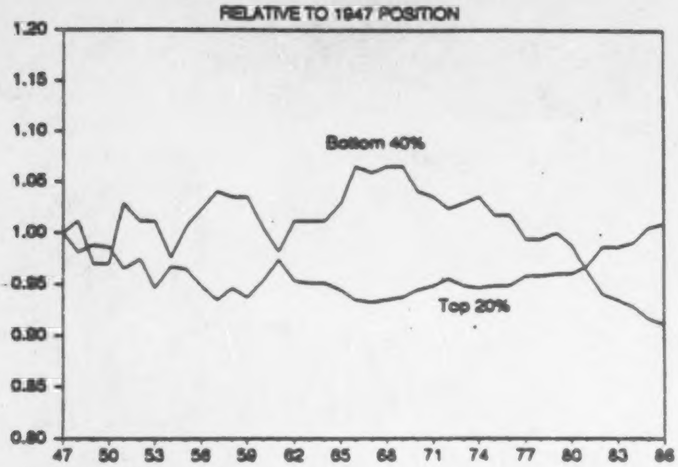
Transfer payments have also risen as a share of personal income since 1970, in two distinct waves of expansion associated with the two recessions of 1974–1975 and 1980–1983.

The data presented so far refer to averages and do not show the way in which income are distributed. The following chart shows the share of pretax money income going to the top 20 percent and the bottom 40 percent of the income distribution relative to their share in 1947. The data show that the share of national income going to the richest 20 percent of the population was larger in the 1980's than at any time in the postwar period, while the share going to the poorest 40 percent fell to its lowest point. Despite the rise in transfer payments, the overall distribution of income has become significantly more unequal during the 1980's (Figure 63).

FIGURE 63

SHARES OF FAMILY INCOME

RELATIVE TO 1947 POSITION

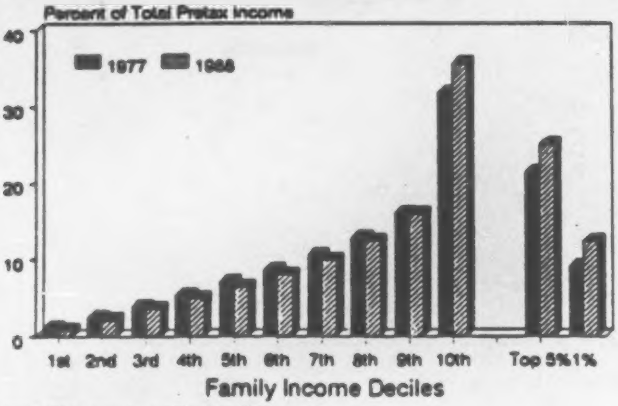


Source: U.S. Census Bureau

This observation is reinforced by a recent study by the CBO, The Changing Distribution of Federal Taxes: 1975–1990, which examined the distribution of family income by decile in 1977 and 1984, and projected income distribution in 1988. The study found a sharp increase in income concentration between 1977 and 1988, with the share of pretax income of the wealthiest 10 percent rising from 31.9 percent of all income in 1977 to 35 percent in 1984. More dramatically, the top 5 percent saw their share of personal income rise from 21.5 percent to 24.3 percent, while the top 1 percent moved from 9.2 percent of pretax income of 11.8 percent (Figure 64). These calculations are based on the assumption that corporate income taxes are paid by shareholders, and that such payments are therefore added to the pretax family income in proportion to the capital income going to each decile. CBO calculations which assume that corporate income taxes are paid by workers show a slighly different pattern, but with similar results on the changes in distribution over time.

FIGURE 64

CHANGES IN DISTRIBUTION
OF PRE-TAX INCOME



Source: Congressional Budget Office

EXPLAINING STAGNATION AND GROWING INEQUALITY

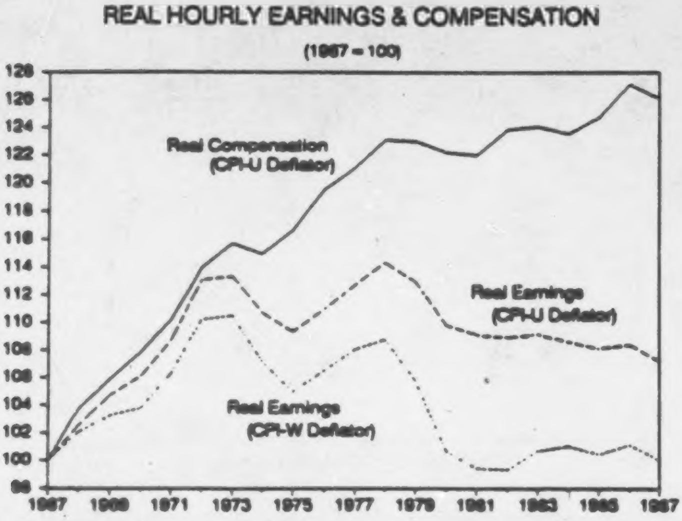
As the preceding charts indicate, the income growth rate has slowed, and income distribution has shown increasing inequality. On these two propositions, there is remarkable unanimity of opinion among researchers.

A recent article in the New England Economic Review summed up the data on average earnings as follows:

> The growth of real average hourly earnings and compensation has slowed cosiderably since the pre-1973 period. U.S. workers suffered earnings loses in the 1970's and early 1980's and do not seem to have fully recovered.

Figure 65, taken from the 1988 Economic Report of the President, provides summary evidence of the proposition cited in that Report that: ". . . in 1987 real hourly earnings remained 9.5 percent below their peak level . . . ," while "real labor compensation growth slowed during the 1970's."

FIGURE 65



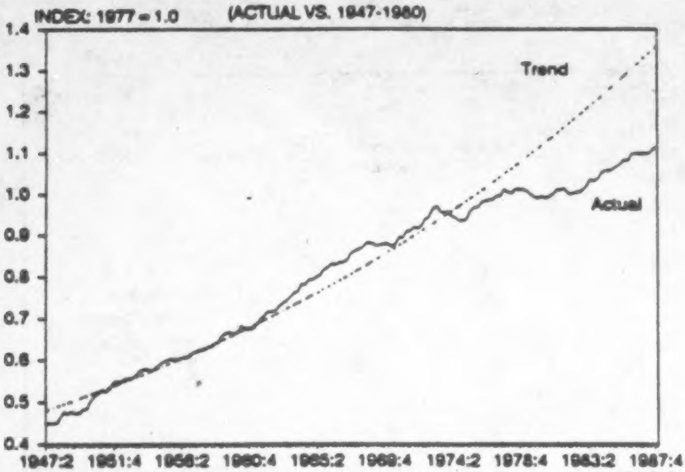
Where unanimity breaks down is on which theories best explain these trends toward stagnation and inequality, and which policies are most effective in improving the growth and distribution of income.

Explaining stagnation

One frequently cited explanation for these trends is the dramatic decline in productivity growth in the American economy during the 1970's and 1980's. Ultimately, the wage which can be paid for an hour of work is limited by the output which can be produced during that hour and, as Figure 66 shows, output per hour of work (productivity) in the American economy has sagged in recent years.

FIGURE 66

PRODUCTIVITY IN THE PRIVATE SECTOR



However, citing productivity slowdown as an explanation for stagnating real labor incomes can be overstated since hourly compensation in manufacturing has not even kept pace with productivity growth. As Figures 67 and 68 show, productivity has surged ahead of compensation in manufacturing, while rising modestly faster than compensation for the economy as a whole. Faster productivity growth might help stimulate wage growth, but there appear to be forces at work other than productivity growth which are helping to hold down the rate of growth in labor income.

FIGURE 67

PRODUCTIVITY AND COMPENSATION IN THE PRIVATE SECTOR

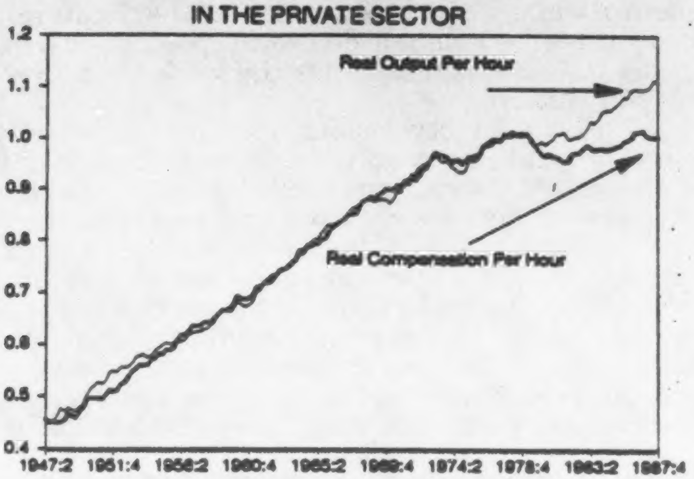
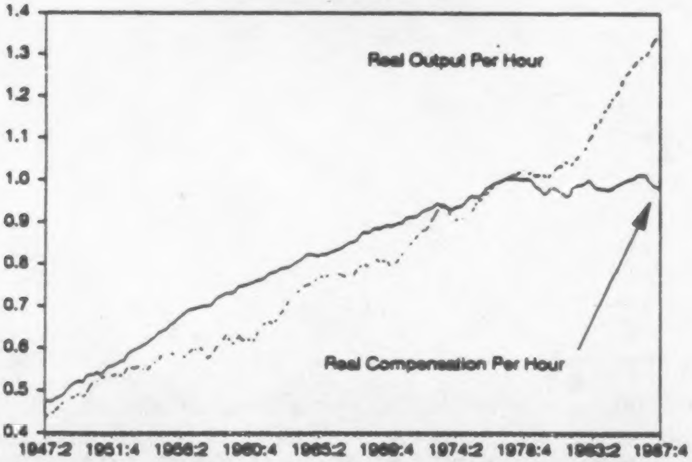


FIGURE 68

PRODUCTIVITY AND COMPENSATION IN MANUFACTURING



A number of observers have suggested that the entry of large numbers of young workers during the 1970's has played an important role in holding down the rate of growth in compensation, since very large numbers of similarly skilled workers entering the labor market at the same time create both a productivity problem (younger, less skilled workers have lower productivity) and a "crowding" problem (more competition for jobs creates more downward pressure on wages).

This demographic change does not explain faltering wage and income growth during the 1980's since the young workers of the

1970's are older, more experienced, and entering their prime earning years, and new labor force entrants are fewer in number. If the 1970's labor market entrants received lower incomes because they were young and less productive, we should expect to see substantial gains in both earnings and productivity as they mature. No such pattern has yet been noted, nor do overall productivity trends give much support to the hypothesis that the work force as a whole is getting more productive.

A third set of explanatory factors relate to the restructuring of the economy brought about by macroeconomic distortions noted earlier in this report. During the 1980's, firms in the manufacturing and extractive industries were put under enormous competitive pressure by the combination of high interest rates and an overvalued dollar. As Table 8 shows, these industries lost employment share in the United States to firms in the service sector, a portion of the economy much less exposed to international competition. The table also shows that, on average, industries which lost employment share paid wages higher than the average, while those gaining employment share paid wages lower than the average.

TABLE 8.—EARNINGS IMPACTS OF EMPLOYMENT SHIFTS: 1979–85

Industries	Share of total employment		Change in share 1979–85	Hourly compensation as percent of 1979–85 average
	1979	1985		
Services	17.3	20.8	3.5	94
Finance insurance and real estate	7.0	7.8	.8	108
Retail trade	19.0	19.2	.2	67
Wholesale trade	7.6	7.7	.1	110
Utilities	1.2	1.2	.0	136
Construction	7.4	7.4	.0	114
Government	2.3	2.3	.0	105
Communications	1.8	1.7	–.1	136
Mining	1.5	1.4	–.1	129
Transportation	4.6	4.3	–.3	120
Nondurables	11.7	10.3	–1.4	99
Durables	18.6	15.7	–2.9	116
Average for industries:				
Gaining employment share				95
Losing employment share				113

Some indication of the impact which this restructuring has had on labor incomes can be seen in Table 9, which compares labor income at cyclical peaks with the income that would have resulted had the same total employment growth been apportioned to industries according to their shares at the preceding cyclical peak. While changes among industries are always taking place, the chart shows that in previous expansions these shifts did not result in a dramatic change in the structure of earnings. The current recovery, by contrast, shows a massive shift toward lower total compensation in the current recovery relative to the occupational structure prevailing at the end of the expansion of the 1970's. The table shows that total labor compensation in 1986 would have been about 2 percent higher had employment growth during the most recent expansion been more balanced across sectors. This amounted to over $500 of annual labor compensation per full-time equivalent (FTE) worker and over $6,000 per new FTE worker. Neither the choice of 1979 instead of 1981 as the most recent cyclical peak nor the choice of final period wages by sector instead of initial period wages by sector affects these results.

TABLE 9.—*Percent differences between actual income and income based on balanced growth*

	Total Compensation
Expansion ending:	
1957	0.2
1959	.9
1969	−.8
1973	.5
1981	.5
1986	2.1

Fourth, the pattern of wage stagnation can also be partially explained by changes in the structure of firms in the American economy which are only partially related to international competition. Over the past several years, many firms have restructured their activities in response to the threat of takeover in the financial markets, higher interest costs, and domestic competition. These restructurings have typically resulted in a restructuring of the way in which labor is used by the firm, often with negative impacts on wage growth. "Two-tier" wage agreements (which protect the incomes of existing workers in return for lower wages for new workers), negotiated worker "givebacks" of benefits won earlier, and the increasing use of part-time or contract labor (what the Conference board calls the "contingent work force") all have the common effect of lowering compensation per unit of output.

Growing inequality

The factors that contribute to stagnation in labor incomes in the 1970's and 1980's—slow productivity growth, macroeconomic imbalance, and internal industry restructuring—do not provide adequate explanation for the observed trend toward growing inequality in the distribution of income.

Evidence from a number of independent labor market researchers is lending support to the view that inequality in individual hourly earnings, and individual yearly incomes, has risen substantially in recent years. A recent review article in the New England Economic Review summed up this research as follows:

> Most researchers agree that the inequality of earnings has increased since the late 1970's, but there are exceptions. . . . The distribution of earnings within industries and occupations has become more unequal. Wage differentials between industries and between occupations have also widened.

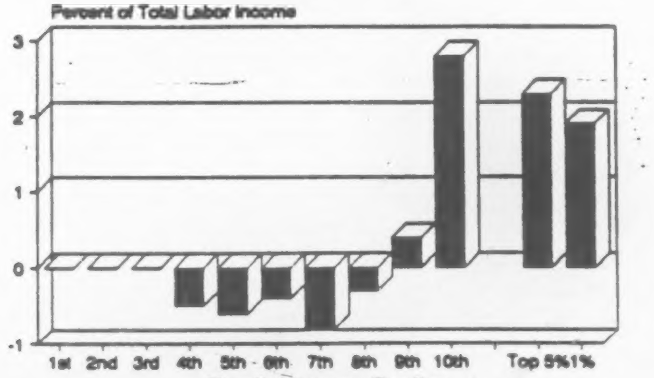
While there is general agreement on growing inequality in the distribution of earnings, there is no agreement on the causes of this shift. A number of factors are generally cited, including intra-industry employment shifts, changing gender composition of the work force, shifting age distribution of workers, and the changing mix of occupations in the economy. The authors of the recent review article conclude:

> There is thus general agreement on a decline in wage growth, an increase in the proportion of low-earnings jobs among full-time, year-round workers, and increased inequality within and between industries and occupations. However, the causes are not well understood. . . . Consequently, the empirical evidence to date does not uniquely support any one policy agenda.

The same tendency toward increasing inequality remains evident with respect to family income. The recent CBO study cited earlier provides some interesting insight on this pattern as well. Between 1977 and 1984, families in the top two earnings deciles saw their share of total labor income increase, at the expense of families in the fourth through eighth decile. The shares of labor income going to families in the first three income deciles remained essentially unchanged (Figure 69). This substantial increase in the labor income going to the top one-fifth of the families is compatible with a variety of explanations—that the number of very high-paying jobs has increased substantially over the period, or that the number of "middle income" jobs has declined significantly over the period, or that families at the upper end of the income distribution have a better chance of getting higher paying jobs for second earners.

FIGURE 69

CHANGES IN DISTRIBUTION OF
LABOR INCOME: 1977-1984

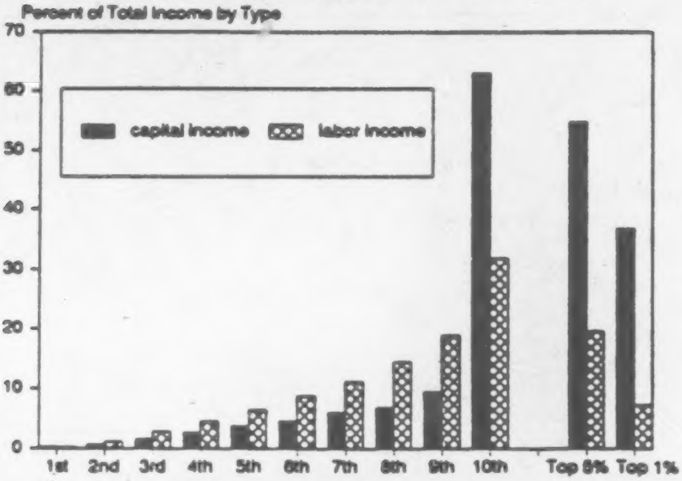


Source: Congressional Budget Office

Inequality arising from the process of generating labor income is reinforced at the family level by strong tendencies toward inequality arising from the concentration of wealth among a relatively small number of families. Precise data on wealth are extremely difficult to obtain, but a proxy for wealth can be found in the CBO measures of income derived from wealth. As Figure 70 shows, capital income is distributed much less equitably than is labor income, with the top 10 percent of the families receiving 63 percent of the total capital income.

FIGURE 70

DISTRIBUTION OF INCOME BY SOURCE: 1984



Given this distribution of capital income, any changes in the economy which raise the rates of return on capital relative to the rates of return on labor (such as a sustained rise in the interest rate, combined with rising unemployment) will help worsen the overall distribution of income.

Tax policy and income distribution

While the economy has been increasing the inequality of pretax incomes, changes in the tax code over the past several years have reduced the ability of the tax system to redress inequality in the distribution of after-tax incomes. Figure 71 shows the changing composition of Federal revenues, and the extent to which progressive taxes fell in the 1981–1984 period while less progressive taxes rose. (Increases in the social security payroll tax, adopted as part of the comprehensive program to strengthen the social security trust fund, are reflected in this trend.)

FIGURE 71

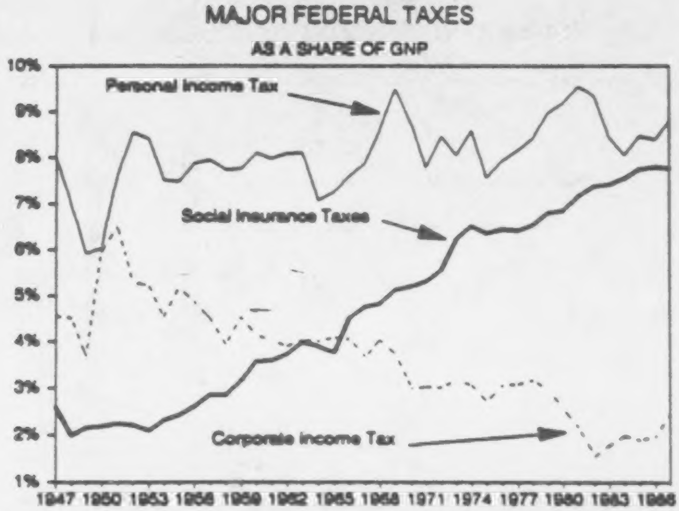
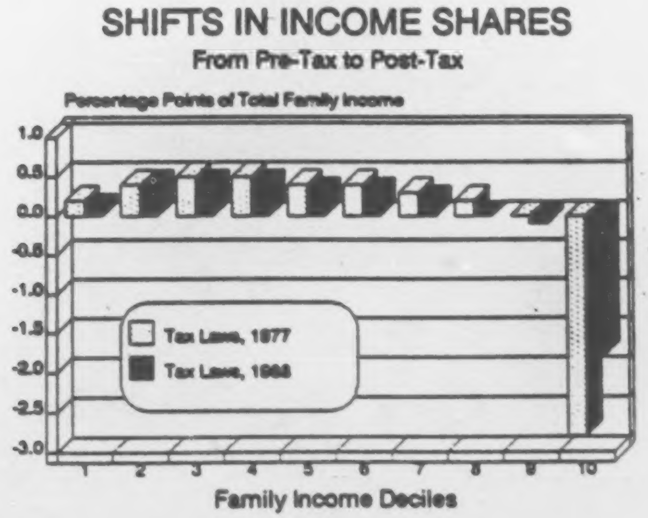

MAJOR FEDERAL TAXES
AS A SHARE OF GNP

Figure 72 shows the changes in the position of each family income decile as a result of the tax code, by measuring the difference between their pretax share of income and their post-tax share. As the chart indicates, the tax system one decade ago tended to benefit the lower income deciles by raising their share of post-tax income relative to their share of pretax income, while reducing the shares of the top decile. The tax system in 1988, in contrast, provides less help to the lower deciles and does less to reduce the income share of the upper decile than a decade earlier.

FIGURE 72


SHIFTS IN INCOME SHARES
From Pre-Tax to Post-Tax

The CBO study concludes that in 1977–1984 the distribution of total taxes became less progressive, largely as a result of "a shift in the tax burden at both extremes of the income distribution. Effective tax rates (the ratio of taxes to family income) rose for the 10 percent of families at the lowest end of the distribution and fell for the 10 percent of families at the highest." As a result of changes in the tax system subsequent to 1984, notably the sweeping 1986 revision of the tax code, "the distribution of taxes is expected to become more progressive but to remain less progressive than in 1977."

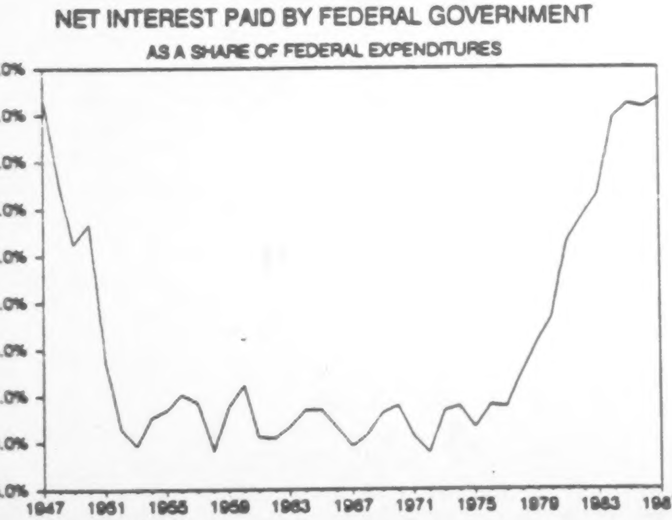
In summarizing changes in the tax system since 1980, Professor James Tobin observed:

> . . . the 1981 reduction of high-bracket rates was obtained without any compensatory sacrifice of loopholes . . . Starting from this new status quo, in 1986, the wealthy successfully extracted further reductions in top rates as the price for closing loopholes that never were justified.

VIII. The Legacy of Experiment: Distorted Priorities

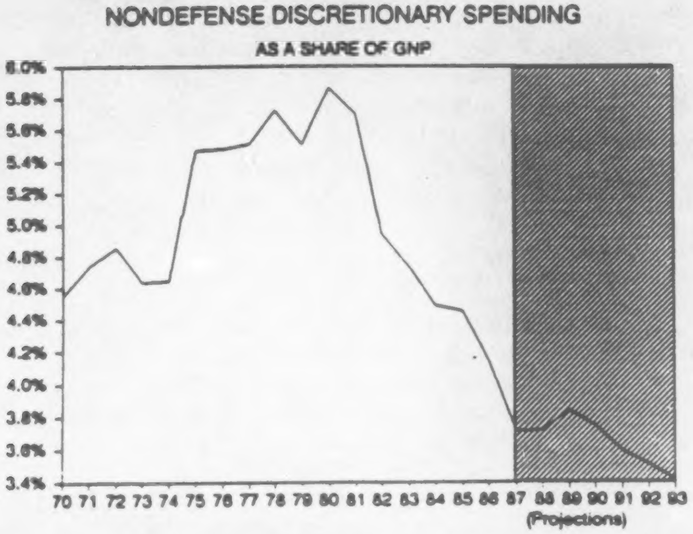
National priorities are generally reflected in the Federal budget and, during the 1980's, these priorities have shifted dramatically. Military spending has increased sharply, as have interest payments on the debt used to finance these expenditure increases (Figure 73).

FIGURE 73



As a result of these shifts in priorities, important areas of public responsibility have been neglected, particularly those areas which address needed investments in the future of the country. As Figure 74 makes clear, the funds available to support all discretionary, nondefense activities of government have fallen sharply during the 1980's and are projected to continue this decline in the 1990's.

FIGURE 74



This is a trend with grave implications for our Nation's future, since public "investments in the future" are indispensable to the overall economic growth process. Neglect of these investments today could well hamper our ability to grow in the future.

INVESTMENT DEFICITS

Trade and budget deficits, problems in and of themselves, are also symptomatic of underlying weaknesses in the economy. To address these weaknesses effectively will require a serious commitment to investment in the future. Unfortunately the policies of the 1980's have focused on the short term of the expense of future concerns. They have failed to stimulate domestic savings and investment. Unprecedented foreign borrowing has occurred and has not been focused on inverstment objectives. As a result plant and equipment are increasingly outmoded, capacity constraints are increasingly a problem, and our ability to compete effectively is weakened.

Investment problems are not limited to the private sector, however. Public investment—in physical infrastructure, civilian R&D, health, education, and training and retraining—have all been neglected in recent years, as policies have been directed to reduction or even outright repeal of such programs.

The neglect of invetment in human resources over the past eight years is especially significant in light of the profound shifts already taking place in the size and composition of the population. The outline of these shifts is well-known. Life expectancy is increasing, and the relatively high birthrates of the two decades following World War II have given way to much lower birthrates. (The "baby boom" generation of 1945–1964 has been succeeded by the "baby bust" generation.) As a consequence the proportion of elderly persons in the population will increase as the proportion of young people declines, with important implications for employment, training, education, and health care.

EDUCATION

In a marked departure from the reports of the least seven years, the 1988 Economic Report of the President sets forth the arguments for government, including Federal Government, support for education in terms of major social benefits, wider economic opportunity, and difficulties faced by families in financing an education. A similar shift appears in the FY89 budget request, which for the first time since 1980 proposes to increase funding for education rather than cut it sharply.

During the 1980's, the Federal Government has been making a shrinking contribution to the Nation's investment in education. After FY81, when outlays by the Department of Education (DOE) peaked at $17.1 billion, Federal spending on education declined. Not until FY86 did DOE's budget return to its 1981 level. Although DOE outlays of $18.8 billion for Fiscal 1988 will be $1.7 billion above the 1981 fiscal year level, the increase has not been enough to keep up with inflation and real spending is down about 14.3 percent. Moreover, had Congress acceded to administration budget requests this decade for DOE, Federal spending on education would have fallen 36 percent after inflation. For FY88, total Federal outlays by DOE will amount to just under 6 percent of total education spending and slightly less than four-tenths of one percent of GNP.

Aside from a small amount of DOE funds that are used for eductional research, Federal spending in 1988 is almost evenly divided between post-secondary programs and elementary and secondary education programs. The Federal role in elementary and secondary education, however, is different in important respects from its role in higher education, and the two need to be reviewed separately.

Post-secondary education

Expenditures for post-secondary education in 1987 totaled $109 billion (see Table 10). Fifty-six percent of these expenditures are financed by private sources. Of the public share, about two-thirds of it is provided by state governments, 27 percent by the Federal Government, and the remainder by local governments.

TABLE 10.—PUBLIC AND PRIVATE HIGHER EDUCATION ENROLLMENT AND EXPENDITURES IN CONSTANT FISCAL YEAR 1986 DOLLARS; FISCAL YEARS 1970 THROUGH 1987 [1]

	1970	1976	1978	1980	1982	1986	1987
In billions of fiscal year 1986 dollars:							
Federal	$11.9	$12.8	$11.6	$12.2	$11.8	$12.9	$13.1
State	$18.5	$25.2	$25.8	$25.5	$26.0	$31.5	$32.7
Local	$2.6	$3.3	$3.1	$2.3	$2.2	$2.7	$2.6
Other	$38.5	$42.7	$44.1	$43.3	$43.7	$58.3	$60.5
Total	$71.5	$84.1	$84.7	$83.3	$83.7	$105.4	$108.9
Per capita (thousands of fiscal year 1986 dollars)	$8.9	$7.6	$7.5	$7.2	$6.8	$8.6	$8.8
Enrollment (millions)	8.005	11.185	11.286	11.570	12.372	12.247	12.398

[1] Constant FY86 dollars are based on the Consumer Price Index, Urban, from the U.S. Bureau of Labor Statistics, as follows: the Index was 113.1 for 1970, 166.2 for 1976, 191.3 for 1978, 339.7 for 1980, 286.0 for 1982, 327.3 for 1986; and 336.7 for 1987.

Source: Table prepared by the CRS, based on data from the Digest of Education Statistics 1987, Table 1, the Digest of Education Statistics, 1982, Table 14, and the U.S. Department of Education Fiscal Year 1988 Budget, Summary and Background Information, Appendix, Table 2.

The Federal investment in higher education reflects a widely shared and long-standing perception of the national interest dating back to the establishment of the land-grant college system in 1862. It was reflected in the G.I. Bill which following World War II led to an increase of nearly two-thirds in the percentage of Americans enrolled in higher education resident degree programs and a 30 percent increase—from 4.6 percent to 6.2 percent—in the percentage of the population with four or more years of college. (That latter percentage reached 17 percent in 1980 and 19.4 percent in 1986.)

Federal investment is higher education has taken different forms, but by far the most significant is support provided directly to students either in the form of grants or loans. Federal programs from time to time have in addition provided incentives in special fields identified as being of immediate national concern, including graduate fellowships for advanced study in the sciences, mathematics, and foreign languages.

Student grant and loan programs.—Since 1981 all of these programs have been subordinated to the overriding policy objective of reducing Federal student aid expenditures. The 1980–1988 funding trends for these programs consistently reflect the "annual funding tension" between Congress and the administration:

Although 2.86 million students received Pell Grants this year, the value to students has declined significantly over the years, with the maximum Pell Grant paying only 37 percent of the cost of a public four-year institution today, compared to 53 percent during the 1980–1981 school year.

Appropriations for the Pell Grant program have increased 26 percent in real terms between FY80 and FY88, an increase of less than 3 percent per year. After peaking at 2.85 million in the 1980–1981 school year, the number of recipients declined significantly and did not return to the 1980–1981 level until the 1987–1988 school year.

The Supplemental Educational Opportunity Grant program has been continued despite repeated administration proposals to eliminate it, but with an overall funding decline in real terms of 20.3 percent;

The College Work Study program, also targeted for elimination, has declined 22.7 percent in real terms;

The Perkins Loan Program, also targeted for elimination, has declined 49.4 percent in real terms;

The Guaranteed Student Loan (GSL) program has grown 9.3 percent in real terms (this program would have been cut virtually in half in the current fiscal year if the administration's restructuring proposal had been adopted.)

These funding shifts and reductions have been accompanied by an expansion of student borrowing through the GSL program that was largely unanticipated and whose longer term implications are little understood. In analyzing the trend, a CRS study has suggested that the explanation lies in rising average costs that have not been matched either by the "average" amount of Federal grant and work awards or by student or parent wage increases.

In a 1986 study published by this Committee, Janet Hansen of the College Board observed that "the Federal strategy for fostering equality of opportunity in higher education, which initially focused on a balanced array of grants, loans, and work opportunities for the disadvantaged, has been transformed, with uncertain and largely unexamined implications for the groups who were the original focus of Federal concern."

Moreover, as the Hansen study noted, there is uncertainty about the significance of the future financial obligations which growing student indebtedness imposes. First of all, indebtedness has risen very rapidly in recent years and total indebtedness levels are much higher than a decade ago. This is true especially when loans have been used to finance graduate education, and a student can now borrow a maximum of $54,750 for undergraduate and graduate education, repayable over a 10-year period. In addition, the burden of indebtedness depends not only on the size of the debt but also upon real wages, changing price levels, and other economic factors prevailing during the period of repayment.

There is also uncertainty over the degree to which student debt repayment obligations may limit future decisions with respect to jobs and careers, family plans, home ownership, and other significant financial undertakings. There is no conclusive evidence in this area, as there is not as yet adequate research focused on the relatively heavier student borrowers of the mid-1980's. According to Ms. Hansen:

> Even though it is virtually impossible as yet to disentangle the knotty question of how much debt students can afford to take on without adverse consequences, however, it is possible to demonstrate that, at the point of borrowing under loan programs as presently constituted, students cannot know what the real burden of the debt they are assumung will be.

"Critical studies" programs.—In this area the 1958 National Defense Education Act (NDEA), a response to the Soviet sputnik challenge that was perceived to be scientific and technological as well as military, remains the benchmark. The NDEA program went beyond traditional impact aid or assistance to land-grant colleges and provided assistance across the country for specific programs in mathematics, science, and foreign languages. While the NDEA expired, many of the programs (such as the Perkins Loan program) continued under other acts. During a period of increasing enrollments in institutions of higher education, NDEA graduate fellowships helped provide the pool of highly trained Ph.D.'s needed to staff these expanding institutions. Despite the clear perception since 1980 of the growing technological and scientific challenge to the United States in world markets, there has been no proposal from the administration to undertake an effort comparable to that of 30 years ago. In 1984, however, Congress passed the Education for Economic Security Act which, while emphasizing elementary and secondary school science and mathematics programs, also provided funds at the post-secondary level.

Elementary and secondary education

At the elementary and secondary school level, the Federal role is limited but critical. Traditionally, state and local governments are responsible for administration of their school systems and for most aspects of education policy, including teacher certification, curriculum and course management, and achievement testing. They are also primarily responsible for funding.

Together, in Fiscal 1987, state and local governments provided 94 percent of total government funding of education (Table 11). State governments have replaced local governments as the largest source of funds in recent years, and provided an estimated 50 percent of all government funds, with local governments providing an estimated 44 percent and the Federal Government the remainder. Federal funding as a percentage of total government funding of education has declined from almost 10 percent in Fiscal 1980 to about 6 percent—roughly a 40 percent decline in the Federal share, which now stands at its lowest level in since 1964.

TABLE 11.—PUBLIC AND PRIVATE ELEMENTARY AND SECONDARY EDUCATION ENROLLMENT AND EXPENDITURES IN CONSTANT FISCAL YEAR 1986 DOLLARS, FISCAL YEARS 1970 THROUGH 1987 [1]

	1970	1976	1978	1980	1982	1986	1987
In billions of fiscal year 1986 dollars:							
Federal	$9.8	$12.4	$13.2	$13.0	$11.1	$9.4	$9.4
State	$45.7	$62.2	$61.6	$61.6	$61.3	$72.2	$74.5
Local	$62.8	$64.8	$63.8	$56.7	$55.8	$65.5	$67.4
Other	$13.9	$16.0	$16.8	$17.1	$16.7	$13.6	$14.1
Total	$132.3	$155.4	$155.4	$148.3	$145.0	$160.7	$165.4
Per capita (Thousands of fiscal year 1986 dollars)	$2.2	$2.5	$2.6	$2.5	$2.5	$2.8	$2.9
Enrollment (millions)	59.124	60.976	60.003	58.215	57.971	57.360	57.710

[1] Constant FY 86 dollars are based on the Consumer Price Index, Urban, from the U.S. Bureau of Labor Statistics, as follows: the index was 113.1 for 1970; 166.2 for 1976, 191.3 for 1978; 239.7 for 1980; 286.0 for 1982; 327.3 for 1986; and 336.7 for 1987.

Source: Table prepared by the CRS, based on Data from the Digest of Education Statistics, 1987, table 1: the Digest of Education Statistics, 1982, Table 14, and the U.S. Department of Education Fiscal Year 1988 Budget: Summary and Background Information, Appendix Table 2.

The Federal role has evolved in response to perceived national interests—the need in the 1950's to match the Soviet space achievement, and more generally the Soviet challenge in science and technology; and the need in the 1960's and 1970's to assure equal access and opportunity, where necessary providing supplementary programs, e.g., in the areas of preschool and nutrition.

The challenges of the 1980's are not so much different in kind as they are in focus and magnitude from the earlier challenges. Scientific and technological competition is perceived today in terms of performance in world markets relative to our trading partners. The perception of access and opportunity has been broadened to extend to (1) a clearly indentifiable and growing "at risk" population and (2) reasonable expectations of productive and well-paid employment in a complex technological economy.

With respect to perceived needs, there is broad agreement among the numerous recent reports on the U.S. system of education that it is seriously deficient in a number of important respects. A 1986 summary report prepared by the CRS identified and discussed seven principal national reports.[1] All cite the following:

> Poor scores of U.S. students on internationally administered tests;
>
> Connection between declining school performance and the declining international position in commerce, industry, science, and technological innovation relative to other nations.

All are consistent with earlier work by Edward Denison, John W. Kendrick, and others who have shown positive correlation between education and productivity growth. These and related issues were discussed in detail in a series of nine hearings held last year in this Committee's Subcommittee on Education and Health.

Nonetheless, in every year but FY89, administration budget proposals have sought sharp reductions in every major elementary and secondary school program. Final appropriations have reflected the executive/congressional "fiscal tension" previously mentioned.

The Compensatory Education program was cut by 14.8 percent in real terms between 1980 and 1988. During this period, the administration attempted to cut the program's budget by up to one-third, but was prevented from doing so by Congress.

The Education Block Grant program, created in 1981 by merging earlier categorical programs, was cut in real terms by 60 percent between 1980 and 1988.

The Education of the Handicapped program, initially targeted for elimination, experienced a slight rise in funding of 3.6 percent between 1980 and 1988.

The funding for the Vocational Rehabilitation program rose a modest 1.8 percent in real terms.

Currently, about 25 percent of all high school students fail to finish school and receive their diploma on schedule. Some argue that about half of these eventually finish high school or complete an equivalency program at a later date. Nevertheless, at least 13 to 14 percent of all high school students never complete even this basic level of education. The result is a tragic waste, both for the Nation and the individuals affected. When a senior DOE official was asked whether it was possible for our country to afford a 14 percent high school dropout rate, his response was "Obviously, we are affording it." Others argue that a dropout rate of one in seven represents a loss that the economy can ill afford.

There are proven ways of reducing the dropout rate. Studies of the Head Start program and other preschool programs show that children who have had the benefits of these programs are consistently less likely to drop out of school. One of the more comprehensive longitudinal studies of preschool programs, "Changed Lives: The Effects of the Perry Preschool Program on Youths through Age 19," found that participation in preschool programs ultimately reduced the high school dropout rate by one-third. Witnesses who appeared this year before the Subcommittee on Health and Education of the Joint Economic Committee also testified that quality preschool programs appeared to be the most effective dropout prevention measure.

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[1] The reports are (1) *A Nation at Risk* (1983) from the National Commission on Excellence in Education; (2) *Making the Grade* (1983) from the Twentieth Century Fund Task Force on Federal Education Policy; (3) *Action for Excellence* (1983) from the Education Commission of the States Task Force for Economic Growth; (4) *High School* (1983) by Ernest L. Boyer of The Carnegie Foundation for the Advancement of Teaching; (5) *Educating Americans for the 21st Century* (1983) from the National Science Board Commission on Precollege Education in Mathematics, Science, and Technology; (6) *A Place Called School* (1983) by John I. Goodlad (report from A Study of Schooling); and (7) *Horace's Compromise* (1984) by Theodore R. Sizer (report from A Study of High Schools) (CRS Report No. 86-56 EPW, March 17, 1986).

Beyond the problem of dropouts, there is a growing concern that millions of Americans—including many who graduate from high school—are functionally illiterate and do not have the reading and writing skills needed to participate in America's increasingly high-technology economy.

Although fewer than 1 percent of Americans are illiterate in the sense that they can neither read nor write even at the most rudimentary level, many are functionally illiterate in that they are incapable of understanding written instructions necessary to accomplish simple tasks in performing a job or carrying out everyday life. Based on a 1982 survey, the Department of Education estimates that 13 percent of adult Americans, or 17 to 21 million persons, are functionally illiterate. Among native-born Americans, 70 percent of those who were found to be illiterate were high-school dropouts. A 1986 study found that 40 percent of enlistees in the armed services read at the 9th grade level or lower.

Illiteracy imposes a high cost on the economy. Corporations alone spend as much as $10 billion per year on remedial reading, writing, and math programs for employees, according to one recent survey. Another study estimated that the total cost of illiteracy in terms of welfare payments, crime, job incompetence, lost taxes, and remedial education amounts to more than $200 billion annually.

The Federal Government is doing an inadequate job of addressing the problems of functionally illiteracy. Even though 17 to 21 million Americans are functionally illiterate, the Adult Education Act, which is the primary vehicle for addressing the problem, serves only 3.2 million people each year. Despite a modest increase in funding for FY88, Federal expenditures for adult education have declined 19 percent in real terms since 1980.

Training and retraining.—While the financial commitment to the Federal Government's major training and retraining program has remained roughly constant during this decade—$5.7 billion requested for Fiscal 1989—there is widespread concern that these programs are not adequate for the labor market and demographic realities that we face.

At a hearing before the Subcommittee on Education and Health, witnesses called for reform in the current welfare system to enhance employment and training components to aid recipients in getting education, training, and the support needed to seek, find, and maintain jobs.

The combination of rapid technological change and increased international competitive pressure have made the need for access to mid-career training common rather than exceptional. In this regard, our current training system has failed to keep pace. Similarly, with slower growth in the labor force, it is becoming increasingly important that we fully utilize all of our human resources. That will require steps to overhaul our basic welfare programs so that they are fully integrated with training and education systems. Simultaneously, efforts to assure that young workers, particularly those who have or are likely to drop out of school, are fully equipped for the modern work place must be intensified.

HEALTH

Over time, health care costs have been rising significantly as a percentage of GNP. To meet our health care needs we will need to make more effective use of health care resources. The old saw, "An ounce of prevention is worth a pound of cure," takes on new meaning in the face of rising costs and a changing population with changing needs. Preventive programs are generally cost effective because they represent relatively small initial investments as opposed to later major health care expenditures and because they can mean not only longer life expectancy but a longer, more effective period of productive working years.

Reallocation of expenditures between the public and private sectors does not eliminate the need for health care services and does not necessarily mean reduced expenditures. Efforts to reduce health care expenditures by developing more efficient reimbursement mechanisms and promoting more efficient health care delivery systems are very important, but do not alone constitute a longtem health policy.

In addition, the Nation's health care problems are changing, and policies must change with them. The traditional communicable diseases have generaly been brought under control, but have been superceded by other clearly discernible threats to the Nation's health and productivity—chronic disabling diseases, environmental hazards, substance abuse, and AIDS are among them.

Policy focus

It is estimated that steps taken since 1980 to restrain hospital care costs will hold the rate of increase in Federal expenditures in the 1985–1989 period well below the rate of increase in the 1980–1985 period. However, with the emphasis on controlling hospital costs there has been a significant shift to outpatient care, and outpatient expenditures are growing much more rapidly than inpatient expenditures.

Restraining unwarranted cost increases is very important, and has positive implications for restraining Federal expenditues. But the Nation still needs to deal with the fundamental long-term health care requirements of a changing population. Attempts to achieve short-term budget savings by reducing or eliminating a wide range of preventive and research programs, including many whose effectivness has been demonstrated over a period of years, would appear to be counterproductive. The administration has sought to curtail a number of cost-effective programs, such as the special Supplemental Food Program for Women, Infants, and Children (WIC) and childhood immunization programs.

The WIC program provides more than 3.4 million participants with special food benefits which are specifically prescribed according to the nutritional needs of the participants. Massachusetts' studies of WIC participation show reduced numbers of low birth weights and neonatal mortality rates.[1] An evaluation undertaken at the Harvard School of Public Health estimates that the relatively higher birth weights of infants born to WIC participants mean a savings of approximately $3.00 in later hospital costs for every dollar expended on the WIC program.

Childhood immunization programs help states and localities to bring vaccine-preventable childhood diseases, including measles, rubella, diphtheria, and whooping cough, under control and have been instrumental in the dramatic decline in the incidence of such diseases. Pediatric experts have testified to the Committee that, for every dollar spent on childhood immunization programs, the government saved roughly $10.00 in later medical costs. A study by the Center for Disease Control (CDC), for example, estimates that $180 million spent over several years on a measles vaccination program reduced subsequent hearing impairments, retardation, and other health-related programs, thereby saving $1.3 billion in medium-term and long-term care. Efforts to reduce funding for these programs have been repeatedly rebuffed in the Congress.

Budget requests for the United States Public Health Service (USPHS) also appear shortsighted. The USPHS includes the National Institutes of Health (NIH), CDC, and the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA). Despite the fact that these units have major ongoing responsibilities in such areas as research, epidemiology, and prevention of substance abuse—programs that clearly serve national interests—PHS budgets have been systematically targeted for reduction. Annual budget requests by the administration consistently have been below the prior year's appropriation and Congress has regularly voted to restore funds for the Public Health Service. In real terms, the administration's request for the current fiscal year was 20 percent less than the FY81 appropriation.

Looking ahead

As the end of the decade approaches, it is useful to review the goals which the Surgeon General's 1979 Report on Health Promotion and Disease Prevention identified as reasonable to accomplish with respect to reducing preventable death and disease by 1990. They included a 25 percent reduction in the infant mortality rate, a 20–25 percent reduction in the death rates for adolescents and adults, and significant progress in assuring healthier and more vigorous lives for older Americans.

The Midcourse Review published in 1986 by the Public Health Service was encouraging in some respects, but raised serious concerns in others. Many of the goals related to pregnancy and infant health appear unlikely to be achieved; in the words of the Review, "Despite the summaries of progress contained in the midcourse review, which depict modest progress in the first years of this decade, an analysis of trends through 1990 provides the unsettling—and challenging—conclusion that many of the objectives will not be achieved, given current rates of progress." Given the fact that in 1950 the U.S. infant mortality rate ranked well above the average of 23 European and Pacific countries and today ranks somewhat below average, this is a sobering assessment (Table 12).

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[1] Kotelchuk, M. et al. "WIC Participation and Pregnancy Outcomes: Massachusetts Statewide Evaluation Project." *American Journal of Public Health,* 74:1084-1092. October 1984.

TABLE 12.—*Ranking of OECD countries by infant mortality rates; ranked from lowest to highest rates*

1950	1980's
New Zealand	Japan
Sweden	Finland
Netherlands	Sweden
Australia	Iceland
United Kingdom	Switzerland
United States	Norway
Norway	Denmark
Iceland	Netherlands
Switzerland	Canada
Finland	Australia
Canada	France
Denmark	Germany
Ireland	Ireland
Luxembourg	United Kingdom
France	United States
Germany	Austria
Belgium	Belgium
Japan	Luxembourg
Greece	New Zealand
Italy	Spain
Spain	Greece
Austria	Italy
Portugal	Portugal

NOTE.—This ranking is based on an unweighted average of male and female infant mortality rates and is therefore approximate.

PHYSICAL INFRASTRUCTURE

During this decade, policies with respect to the Nation's physical infrastructure have generally been designed to reduce Federal responsibility for investing in infrastructure, to shift the responsibility for investment from the Federal Government to state and local governments under the guise of the New Federalism program, or to leave the responsibility to be assumed by the private sector as part of the administration's preference for free market economics.

As Professor Michael Porter of the Harvard Business School recently concluded, with respect to physical infrastructure, "the administration's major failure is in not investing more in America's future economic prosperity."

Since 1980, capital spending has fallen significantly as a fraction of Federal outlays. In the decade of the 1960's, Federal nondefense physical capital investment accounted for 2.0 percent of total Federal outlays (see Figure 75). During the 1980's, investment outlays amounted to only 1.2 percent of the budget, just over half the previous share. Concurrently, Federal grants to state and local governments for capital investments declined from 3.5 percent of Federal outlays to 2.6 percent (Figure 76). Overall, Federal outlays for nondefense capital investments declined from 5.5 percent of total Federal outlays during the 1960's to 3.8 percent during the 1980's (Figure 77).

FIGURE 75

FEDERAL NONDEFENSE CAPITAL OUTLAYS

(As a Percent of Total Outlays)

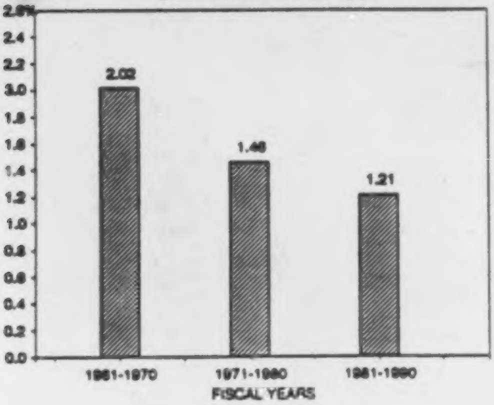


FIGURE 76

CAPITAL GRANTS TO STATE & LOCAL GOVERNMENTS

(Percent of Federal Outlays)

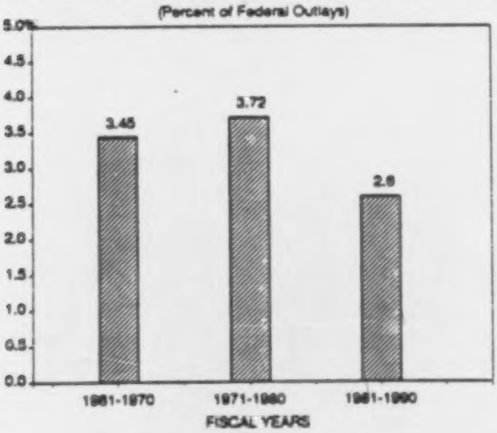
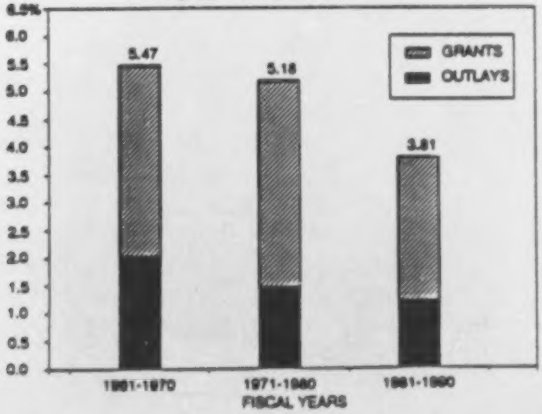


FIGURE 77

FEDERAL CAPITAL OUTLAYS AND GRANTS

PERCENT OF FEDERAL OUTLAYS

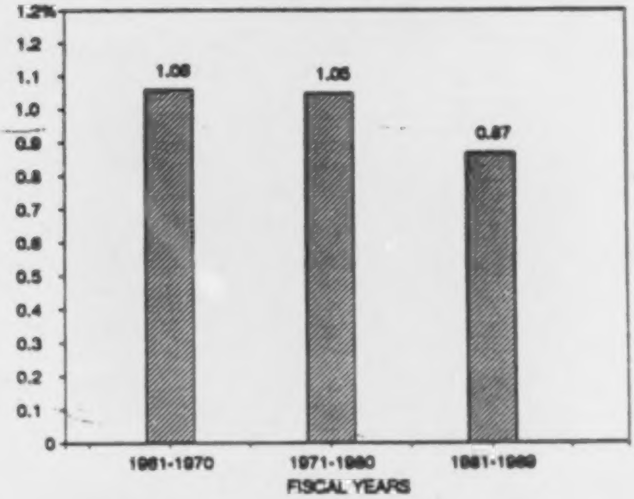


Since the 1960's, Federal spending for capital investments has also declined significantly as a share of GNP. Between 1961 and 1970, the combined total of Federal outlays and of grants to state and local governments for capital investment came to an average of 1.06 percent of GNP. This share fell slightly to an average of 1.05 percent between 1971 and 1980. Since 1980, however, total Federal capital spending amounted to only 0.87 percent of GNP (Figure 78).

FIGURE 78

FEDERAL CAPITAL OUTLAYS AND GRANTS

PERCENT OF GNP



The public capital investments that make up the basic infrastructure contribute to economic prosperity in two ways.

Many of the services provided by public investment in infrastructure are consumed directly by American households and taken for granted until permitted to decay—an overflowing sewer, a dry faucet, an unmended pothole, a collapsed bridge, a near-collision between two commercial jets. Nancy Rutledge, Executive Director of the National Council on Public Works Improvement, recently listed ways in which infrastructure serves the public:

> To the public, the physical infrastructure represents a set of services, such as reliable transport of goods and people, fresh water, protection from floods, and safe disposal of waste. These are all basic components that determine the nation's quality of life and its economic vitality.

Physical infrastructure provides indispensable support to the private sector manufacturing and commercial activities of the economy. Few private investments in factories, offices, or shopping centers would be profitable if their construction costs also included the roads necessary to bring the products to market, the reservoirs and aqueducts needed to supply fresh water, or the sewers and treatment plants needed to dispose of industrial waste. John Horsley, Chair of the Rebuild America Coalition—a group of public and private trade associations concerned with the condition of the Nation's infrastructure—recently testified on the contribution of infrastructure to the private economy:

> The United States has invested hundreds of billions of dollars in infrastructure. The money has been well spent. America's infrastructure has fostered economic growth, created jobs, and supported American business in its struggle to compete in international markets . . . Economically, a strong infrastructure supports an active and efficient commerce, allowing goods and people to move rapidly to centers of business and trade. This is a benefit accruing not to a single community, but to every community. Economic growth has a ripple effect, and infrastructure provides the foundation for the nation's continued growth and prosperity. The responsibility for investing in infrastructure is shared among the Federal Government and state and local governments. Throughout the history of this country, the Federal Government has fulfilled a central role in financing and building needed infrastructure, from the canal and wilderness road-building programs in the late 18th and early 19th centuries, to support for the railroads in the late 19th century, to the dam-building and rural electrification projects of the Depression years. As early as the 1820's and 1830's, 11 percent of the Federal budget was devoted to infrastructure investment, according to the National Council on Public Works Improvement. On the modern problem of interstate highways, the CRS recently reported that Federal involvement in highway construction began as early as 1921 with enactment of legislation establishing a system of "Federal-aid highways."

Today the Federal Government has major responsibility for important infrastructure investigations that will affect the Nation's future economic strength. These include financing the construction of interstate highways, mass transit, and wastewater treatment plants, to name only a few. In some cases a Federal agency is the provider. The Army Corps of Engineers, for example, dredges ports and constructs waterway improvements. Far more commonly, the Federal Government shares the financing of infrastructure provided by state and local governments. The Environmental Protection Agency, for example, pays 55 percent of the construction cost for local wastewater treatment plants. The Federal Highway Trust Fund currently pays 90 percent of the cost of constructing interstate highways and up to 80 percent of the cost of repairing bridges.

Nonetheless, over the past seven years, Federal Government policies have been designed to reduce or "stretch out" programs for public sector capital investment. A 1985 CBO study, The Federal Budget for Public Works Infrastructure, concluded:

> In recent years, this section of the budget has been the major focus of efforts to slow the growth of the Federal deficit.

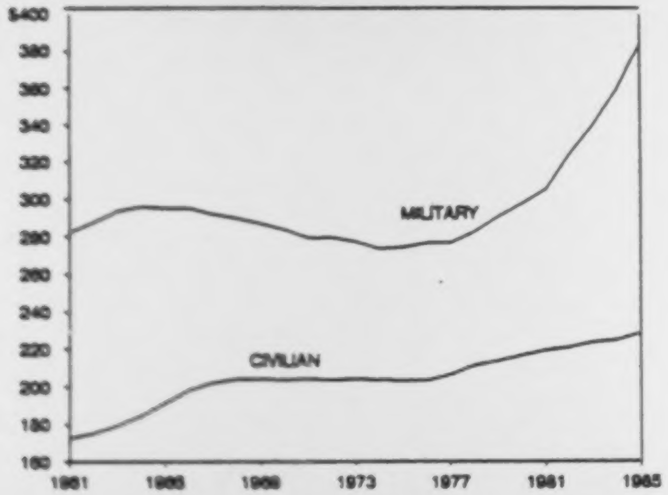
Earlier this year, the Congress overrode two presidential vetoes of major infrastructure bills, the Clean Water Act and the Surface Transportation and Uniform Relocation Assistance Act. The first carries forward earlier agreements with respect to continuing funding for water projects, while the second provides $70 billion in highway funds and $18 billion in transit funds over four years.

Virtually all of the growth since 1980 in Federal Government infrastructure has occurred in structures and equipment that have military uses, as Figure 79 shows. There has been little growth in the stock of Federal infrastructure with civilians uses, such as interstate highways, dams, and research facilities. Since 1980, the net stock of military structures and equipment has grown 29 percent in real terms, while the net stock of federally funded civilian infrastructure has grown only 5 percent.

FIGURE 79

NET STOCK OF NONRESIDENTIAL FEDERAL CAPITAL

BILLIONS OF 1982 DOLLARS



Last year, the Joint Economic Committee conducted a series of hearings on the subject of prudent investment in the Nation's future economic strength. During these hearings, the Committee examined the role of Federal investment in three important forms of infrastructure—the air transportation system, the statistical infrastructure, and R&D. In these areas, the Committee found that the current policies have led to inadequate levels of Federal investment, with probable adverse consequences for the economy in the long run.

Air travel is today the fastest growing mode of travel in the United States. More than 1.1 million people travel daily on commercial airlines, with half of all airline passengers traveling for business purposes, according to a Gallup poll conducted for the Air Transport Association. The Federal Aviation Administration (FAA) estimates that by 1992 airline travel will double to almost two million passengers per day. Aviation accounts for more passenger miles than all other forms of public transportation combined and is second only to the automobile in terms of intercity passenger miles.

The critical role of the Federal Government in aviation was spelled out by two witnesses before the JEC:

> The air traffic control system is owned and operated by the FAA and represents the most direct and significant Federal influence on aviation.
>
> . . . the aviation industry and in particular the airline industry is the only business that comes to my mind that is totally dependent on a Federal involvement 24 hours a day, 365 days a year. In order to move our product, we cannot move an airplane an inch without the active involvement of the Federal Government, namely the FAA.

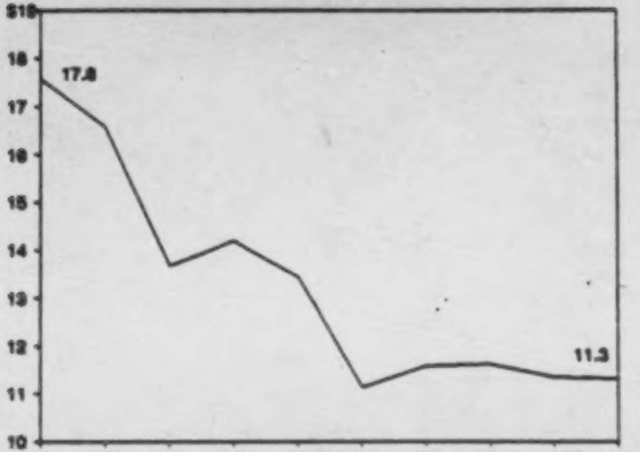
Virtually all air travelers and air transportation professionals are familiar with delays, misplaced baggage, abrupt cancellations, and arbitrary routings and reroutings. One witness estimated that the annual cost of delays, both to passengers and the airline industry, is $5 billion or more. The FAA's response to the problem of delays has been to public the on-time record of all major scheduled airlines in the hope that passenger pressures will force airlines with unacceptable records to improve them.

Of even greater concern is the declining margin of safety in air travel. More than a year ago in the course of a series of JEC Subcommittee hearings on Federal safety standards, witnesses described serious problems with respect to the condition of U.S. airports and safety equipment, and the adequacy of airplane inspection, system maintenance, and air traffic control. Depsite a much higher traffic load than a decade earlier, there are fewer fully operational air traffic controllers and fewer safety and repair specialists, more operational errors, and more near collisions. Indeed, in the last five years alone, near midair collisions have risen steeply and steadily every year, more than tripling since 1982. Such incidents numbered 1,063 for the 1987 calendar year, an increase of some 27 percent over the 1986 level of 840. Figure 80 shows the history of near midair collisions since 1973 and the sharp increase since 1982, for all aircraft and for commercial airlines.

FIGURE 80

FEDERAL AVIATION OUTLAYS

(1982 DOLLARS PER 1,000 REV. PASS. MILES)



Today's problems result in large part from the failure to take prudent steps to meet the rising demands on the system. Investment has been inadequate. As Figure 81 shows, the Federal Government currently spends just over $11 per 1,000 revenue passenger miles compared to more than $17 per 1,000 passenger miles a decade ago. Federal grants-in-aid to state and local governments for airport construction and improvements are just half the level of a decade ago, as shown in Figure 82.

FIGURE 81

FEDERAL AIRPORT GRANTS-IN-AID

(1982 DOLLARS PER 1,000 REV. PASS. MILES)

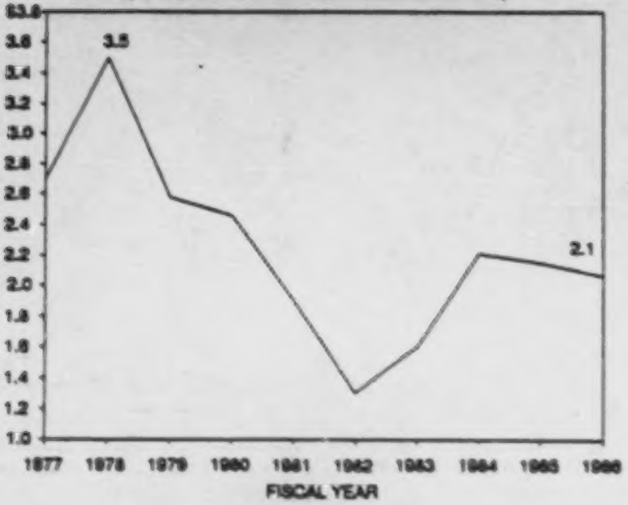
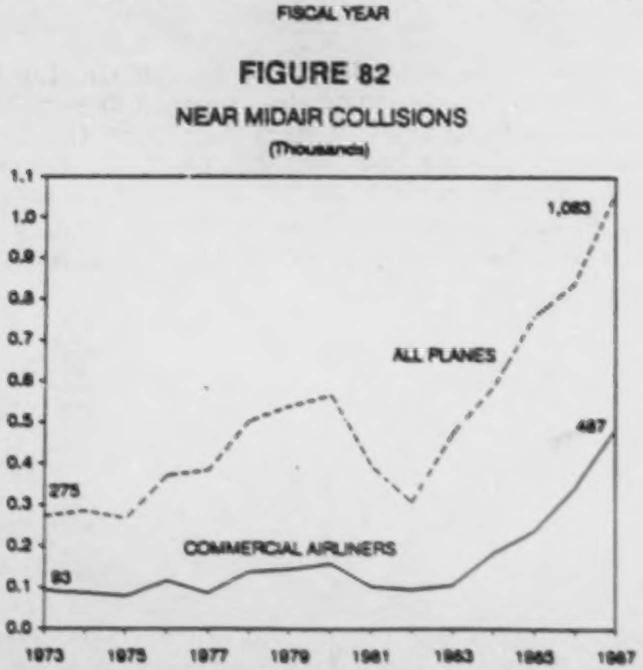


FIGURE 82

NEAR MIDAIR COLLISIONS

(Thousands)



Yet resources are available for investment purposes. The Aviation Trust Fund, which is financed by a tax on air travelers, currently has an unappropriated surplus in excess of $8 billion. At the same time, the National Airspace Systems Plan, a program developed in the early 1980's to refurbish and update the Nation's air traffic control system, lags behind schedule in development and implementation. Nonetheless, despite delays in installing the necessary hardware, the plan for reducing personnel has been implemented. As a result, the system today has too few controllers to handle the increased traffic load and too few systems specialists to maintain and repair the radar and other safety equipment.

STATISTICAL INFRASTRUCTURE

The public investment in Federal statistical programs is very modest, accounting for less than two-tenths of one percent (0.2 percent) of the Federal budget. While the programs are little known to the public at large, they play an essential role in the U.S. economy by providing an indispensable basis for responsible decisionmaking in both the private and public sectors.

U.S. statistical programs have traditionally set world standards, meeting rigorous professional standards to assure the quality of statistical information in terms of comprehensiveness, accuracy, timeliness, and availability. The Bureau of Labor Statistics (BLS), the Bureau of the Census, and other Federal statistical agencies have served as models for other nations' statistical systems. Japan's modern statistical infrastructure was established only after World War II, with the assistance of U.S. advisers, and drew on techniques pioneered in U.S. agencies.

Unfortunately, trends since 1980 have raised ever more insistent questions about our commitment and capacity to maintain the high quality of existing statistical programs. Furthermore, there are serious concerns about our ability to adapt to rapid and profound changes in the economy; as one witness told this Committee, quoting a former Commissioner of BLS, "If economic statistics are not continually improved, they will deteriorate."

These trends have been reviewed in some detail by the Committee, which has a long-standing concern for the quality and integrity of the Federal statistical infrastructure. Several of the most serious current problems are outlined below.

Inadequate resources

Of the nine major statistical agencies, six have operating budgets today that are at lower levels, in real terms, than eight years ago. Table 13 shows that, in most cases, stripped of one-time projects and artificial transfers, the FY80–FY88 comparison obscures the even sharper reductions that occurred during the intervening years.

TABLE 13.—BUDGET AUTHORITY FOR MAJOR STATISTICAL AGENCIES, 1980–88

Fiscal year—	1980	1981	1982	1983	1984	1985	1986	1987	1988
	Operating budgets (millions of current dollars)								
CENSUS	53.70	57.20	57.20	69.20	77.40	85.30	86.50	90.78	94.84
BLS	102.90	104.80	107.70	115.90	120.80	125.26	123.78	137.71	150.51
BEA	17.23	18.66	19.39	20.48	20.87	21.46	21.20	21.71	21.95
Stat of Income	14.60	14.60	16.40	14.70	17.40	19.00	12.30	15.50	17.80
Nat'l Ag Stat Srvc	49.00	53.80	51.60	51.80	54.40	58.30	56.20	58.00	61.00
Energy Info Agency	90.80	90.40	78.90	56.40	56.40	60.90	57.70	60.30	61.40
Nat Ctr Health Stat	38.10	38.80	43.30	37.90	38.20	42.80	44.60	52.00	49.00
Nat Ctr Educ Stat	18.78	18.29	17.29	17.21	17.60	17.60	18.20	27.64	29.70
HUD-Statistics	11.87	11.59	10.47	9.07	12.72	11.06	11.35	11.84	11.88
Total	396.98	408.14	402.25	392.66	415.79	441.69	431.83	475.47	498.08

TABLE 13.—BUDGET AUTHORITY FOR MAJOR STATISTICAL AGENCIES, 1980–88—Continued

Fiscal year—	1980	1981	1982	1983	1984	1985	1986	1987	1988
	Operating budgets (millions of 1988 dollars)								
CENSUS	77.11	74.95	70.30	81.16	87.44	92.29	90.87	92.60	94.84
BLS	147.75	137.32	132.37	135.93	136.47	135.53	130.04	140.46	150.51
BEA	24.74	24.46	23.83	24.02	23.57	23.22	22.27	22.15	21.95
Stat of Income	20.96	19.13	20.16	17.24	19.66	20.56	12.92	15.81	17.80
Nat'l Ag Stat Srvc	70.36	70.50	63.42	60.75	61.46	63.08	59.04	59.16	61.00
Energy Info Agency	130.38	118.45	96.98	66.15	63.71	65.89	60.61	61.51	61.40
Nat Ctr Health Stat	54.71	50.84	53.22	44.45	43.15	46.31	46.85	53.04	49.00
Nat Ctr Educ Stat	26.97	23.97	21.25	20.18	19.88	19.04	19.12	28.19	29.70
HUD-Statistics	17.04	15.19	12.87	10.64	14.37	11.97	11.92	12.07	11.88
Total	570.01	534.81	494.40	460.52	469.71	477.89	453.64	484.98	498.08

The remaining three agencies' real budget resources show very modest increases. BLS, which is responsible for producing such critical information as the CPI and employment and unemployment statistics, has virtually the same budget in FY88, in real terms, as in FY80. The BLS budget actually declined approximately 12 percent over the intervening period.

Overall, the operating budgets of the nine major agencies declined nearly 13 percent in real terms between FY80 and FY88. Severely limited budget resources have led to elimination, reduction, or delay in numerous important programs.

The problem of producing information that is accurate, comprehensive, and timely has been particularly acute with respect to trade despite the urgency of the task. The broader question of assuring the highest professional standards in Federal statistical programs was raised in recent months by proposals from OMB that would have overridden the judgment of the Census Bureau with respect to the 1990 decennial census. Both issues are discussed below.

Inadequate trade statistics

It should be noted that the Japanese currently issue preliminary monthly trade statistics within 10 days. In contrast, the first U.S. reports take roughly six weeks to prepare.

Three different agencies, each with different responsibilities, are involved in the production of U.S. trade data. They are the Customs Service and, in the Department of Commerce, the Census Bureau and the Bureau of Economic Analysis (BEA).

There currently exists no systematic and reliable means of recording U.S. exports to other countries. Comparison of U.S. records of exports to Canada with Canadian records of imports from the United States reveal very significant statistical discrepancies. Export records involving other U.S. trading partners have not even been reconciled.

The Census Bureau compiles import records on the basis of Customs Service data, but antiquated Customs procedures have made prompt and accurate compilation difficult. As a result, until recently a substantial proportion of imports in any given month were reported in a later month, thereby making monthly figures unreliable. To address the monthly import carry-over problem without requiring a change in Customs Service procedures, the administration determined that release of the monthly data would be delayed by two weeks. In effect, timeliness was sacrificed in an effort to assure greater accuracy.

Monthly figures compiled by the Census Bureau have not been seasonably adjusted since 1985, while quarterly figures published by the BEA are regularly corrected for seasonal shifts. The monthly figures are therefore more timely and widely quoted, but less accurate. The quarterly figures, while more accurate, are less timely and receive considerably less attention.

The 1990 Decennial Census

Recent administration efforts to reduce significantly both the questionnaire and the sample size for the 1990 decennial census have dramatically underscored concerns about the commitment to assure the traditional high quality of the Federal statistical infrastructure.

The OMB directive to cut the census by reducing the sample size and eliminating approximately one-third of the questions—including virtually all questions related to housing—was in clear conflict with the recommendations of the Bureau of the Census. In the face of vigorous, widespread, and persistent criticism from state and local governments, private sector statistics users, and professionals in the statistics field, the OMB directive was recently withdrawn. The questionnaire and procedures used in carrying out the 1990 census will reflect the professional judgment of the Census Bureau.

This Committee received unusual voluminous written comment from numerous sources outlining the consequences of implementing the OMB directive. This correspondence, as well as oral testimony presented at a Committee hearing, was unanimous both in recommending against the proposed reductions and rejecting the extraordinary fashion in which the reductions were proposed.

The OMB proposals were as unexpected as they were far-reaching. Preparatory work in connection with the 1990 census began in 1984. A representative of OMB chaired the Federal Agency Council, which was established for the express purpose of developing census procedures and content. More than half a dozen pretests were conducted in the 1984–1987 period, all involving questionnaires reviewed and approved by OMB.

Yet the OMB proposals to reduce the number of census questions and restrict the sample size were forwarded to the Census Bureau only in July 1987 in connection with the census "Dress Rehearsal" scheduled for March 1988. As one Regional Planning Council director wrote to the Committee at the time the OMB guidelines were announced:

> The current census format is the product of an extensive review, refinement, and public outreach program administered by the Census Bureau in recent years. The questionnaire now represents a fair compromise among the various groups that offered input during the public hearing process. Introducing major changes at this point would violate that process.

The proposed reductions were directed to a broad range of questions, notably those involving housing, energy, commuter information, and employment, and to the size of the sample. Comments received by the Committee with respect to the OMB directive were in agreement that, if implemented, the directive would have numerous adverse consequences. Those most frequently cited were:

> The information base for the next decade, essential for state, city, community, and private sector use in critical matters from traffice engineering to housing programs to market analysis, would be seriously restricted and responsible planning made more difficult;
>
> The central role of the decennnial census as the benchmark for other important surveys would be undermined;
>
> The identification and analysis of continuing trends, which requires comparison of information from both the 1980 and 1990 census, would be impaired;
>
> The reliability of data for any small area or group, including neighborhoods, traffice analysis zones, rural communities, minority groups, and the elderly population, would be reduced.

Correspondents and witnesses also united in rejecting the OMB contention that census information could be obtained from other sources. In the view of the National Governors Association, "OMB cites the fact that there are alternative sources available for obtaining the data in the questions proposed for deletion. We believe that there are no adequate substitutes for these data."

The recent debate over the 1990 census has had implications reaching beyond the census itself to the broader question of the statistical infrastructure. The issues were well summarized in the separate observations of a state public works official and of a county manager. In the words of the former:

> If this information is not available from the census, it will be necessary to turn to our own data collection programs. The expenditures of local, state and Federal funds for such efforts will overwhelm any cost reduction to the census. They will also produce poorer results. . . .

The county manager wrote:

> Finally, we offer a general observation. Over the past several years, the Federal Government has discontinued a number of statistical publications and reports. At the same time Federal funding has been reduced or terminated for many programs and more responsibilities placed at the state and local levels. Proper planning and management requires good data and information, much of which has historically been available from the census. If anything, an argument could be made that more data should be collected by the census, not less.

The Federal statistical infrastructure will play a pivotal role in our efforts to meet the challenges facing the economy. Recent developments serve to underscore the importance of assuring adequate budget resources for, and reaffirming the professional integrity of, our statistical programs.

RESEARCH AND DEVELOPMENT

The strength of the U.S. economy depends on a vigorous technological base. Investment in R&DA is an investment in America's future economic growth. In his testimony before the Joint Economic Committee, Director Erich Bloch of the National Science Foundation observed that in the postwar period, "the growth in the world economy has been in areas created by scientific discoveries and engineering innovations and inventions."

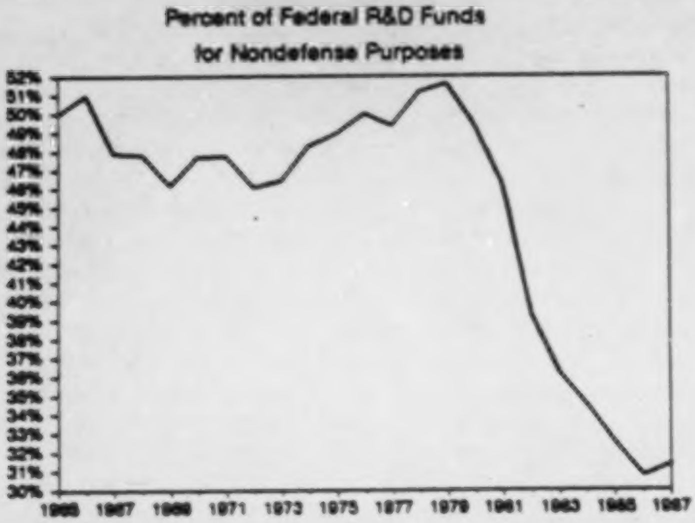
Although much R&D in the United States is undertaken by educational institutions and private businesses, the Federal Government plays a critical role by supporting investment in R&D. The government's role is especially important in funding basic research where the financial benefits can be too far off in the future or too widely diffused to be undertaken by the private sector. In such cases the private sector will invest too little in basic research, requiring assistance from the Federal government to ensure that such research is performed.

Federal investment in R&D helped contribute to the dynamic growth of the economy during the postwar decades. During the 1980's, however, changes that have occurred in the level and composition of Federal R&D spending may result in a long-term erosion of our technological base. These changes include a shift in Federal R&D spending to military uses and a decline in the fraction of Federal R&D spending for basic research.

Shifts in the composition of Federal R&D funding

Several important changes have occurred during this decade in Federal expenditures on R&D. Federal spending for military R&D doubled between FY80 and FY88 in real terms while investment in nondefense R&D actually declined. This resulted in a dramatic shift in the composition of Federal investment in R&D. From the mid-1960's until 1980, the Federal Government allocated roughly half of its R&D expenditures to defense and half to nondefense (Figure 83). This balance has been shifting sharply since 1980, and in 1988 over 67 percent of Federal funds for R&D were spent on military projects.

FIGURE 83



Another important change is the shrinking portion of Federal R&D expenditures devoted to basic research. Basic research is research performed to gain a fuller understanding of the fundamentals of science and technology. The focus on fundamental knowledge makes the results from basic research relevant to a large number of products and processes. Because basic research is not tied to any specific products or processes, industry is less apt to perform it, making Federal support for basic research more important.

Basic research as a portion of Federal R&D has been dropping since 1980. The major reason is the shift of R&D resources into DOD since most of its R&D spending is devoted to development rather than basic or applied research.

Finally, the potential for spinoffs from defense R&D to civilian technology has been shrinking. The increased complexity of modern weapon systems has forced defense R&D to focus increasingly on products and processes that have few civilian applications. As Dr. Bloch testified, "the fallout from the defense sector into the civilian sector is no longer as pronounced as it was at one time." Furthermore, according to Dr. Bloch, there are many areas of advanced technology where civilian R&D leads the defense sector, including semiconductors, microcomputers, and biotechnology. As defense absorbs a rising share of Federal R&D spending, fewer civilian benefits can thus be expected.

U.S. scientific and technical labor force

The quantity and quality of U.S. students studying to be scientists and engineers is another area that may present problems for the United States. The United States is not producing technical personnel at a rate comparable to that of its competitors. Japan awards 15 percent more first degrees in engineering than the

United States even though their population is roughly half that of the United States. In 1982, 6 percent of all first degrees awarded in the United States were in engineering, while in Japan 19 percent of all first degrees were in engineering. Although the United States still retains a higher number of scientists and engineers per capita than Japan, the gap is disappearing. Furthermore, in the United States both defense and civilian projects compete for the technical personnel, while in Japan they are almost entirely used in civilian projects. Concern over the quality of U.S. students comes from widespread agreement among professionals working in the field that the best academic students are now less likely to be attracted to research careers.

If the United States attempts to increase the number of scientists and engineering students, women and minority students are a likely source for new recruits. Blacks, women, and Hispanics continue to be underrepresented in the student population, and graduate engineering enrollment has been maintained only with increasing numbers of foreign students. One-quarter of the Nation's science and engineering degrees are now awarded to non-U.S. nationals; in engineering the number is more than one-half. About 60 percent of the foreign students stay in the United States, thereby filling a worrisome gap in trained personnel.

The effect on U.S. competitiveness

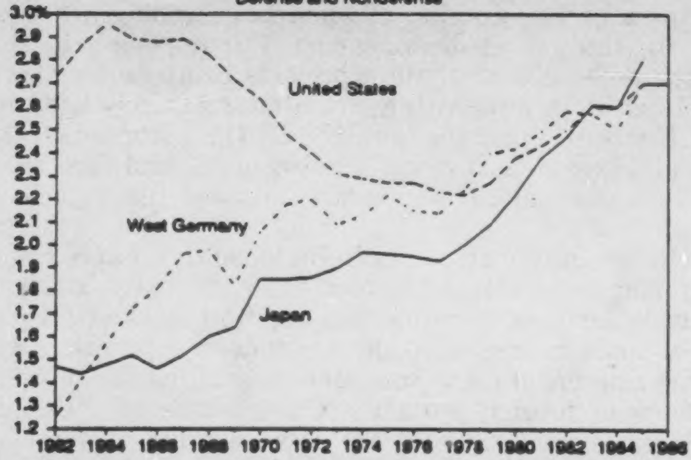
There are many indications that U.S. technological dominance has already begun to decline. U.S. patents awarded to U.S. inventors rose only slightly in number from 46,000 in 1970 to 48,000 in 1987, while the number of U.S. patents awarded to foreign inventors more than doubled from 20,000 to 41,000 during the same period. The portion of scientific and technical articles published worldwide that were authored by American has shown a similar trend.

The relative decline in U.S. performance is due in part to increased R&D spending abroad. West Germany and Japan in particular have recognized the importance of R&D to their future economic growth. West Germany has increased the share of its GNP spent on R&D by 30 percent between 1970 and 1985; and Japan has increased its share of GNP spent on R&D even more quickly, by 50 percent in the same period. With this rapid growth in expenditure, the West Germans and Japanese now spend roughly the same percent of their GNP on R&D (2.7 percent) as the United States (see Figure 84).

FIGURE 84

R&D Expenditures as a Percent of GNP

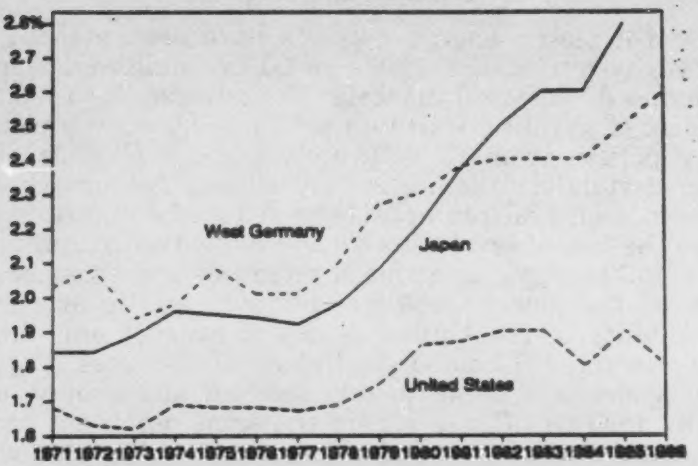
Defense and Nondefense



However, and most important, while West Germany and Japan devote the same percent of their GNP to total R&D, they spend a much larger share of their R&D budget on nondefense projects than does the United States. Since 1980, U.S. investment in civilian R&D has remained constant, roughly 1.8 to 1.9 percent of GNP (see Figure 85). In contrast West Germany's investment in nondefense R&D increased 13 percent between 1980 and 1986 and Japan's investment increased more than 27 percent. Both of these countries are now investing between 2.6 and 2.8 percent of their GNP in nondefense R&D, roughly half again as much as the United States. This disturbing trend has bolstered doubts about the U.S. ability to compete over the longer term in international markets.

FIGURE 85

Nondefense R&D as a Percent of GNP



Another area of concern for the United States is that foreign competitors seem to make better use of R&D than their U.S. counterparts. In recent testimony before the JEC, Professor Edwin Mansfield of the University of Pennsylvania presented the disturbing results of a two-year study that examined contrasting patterns of technology development in the United States and Japan. The study found:

U.S. companies outperform the Japanese at the task of developing new products from the results of basic R&D, but the Japanese excell at introducing new products more quickly and cheaply than do American firms.

The Japanese are better than Americans at developing new products and processes based on external, borrowed technology. The Japanese do not necessarily borrow more than Americans do, they are just more efficient in commercializing what they do borrow. When the research for new products is generated internally, the Japanese and Americans are about equal in developing new products.

When borrowing technology, the Japanese do not simply imitate. Instead, they make significant technological enhancements to the product or cut its production costs substantially. By contrast, when American firms imitate, they tend to focus on marketing strategies rather than product improvement to differentiate one firm's product from another's.

When introducing new products, American firms far outspend the Japanese on marketing costs, while the Japanese emphasize enhancing the technical performance of their products and keeping down production costs.

In contrast to American firms, which allocate about two-thirds of their R&D expenditures to the task of improving products and only one-third to the task of improving the manufacturing process, the

Japanese make just the opposite allocation. In this way, the Japanese make major advancements in both cost and quality of products.

ENERGY SECURITY

World and domestic energy markets have been marked by dramatic volatility during the 1980's as OPEC maintained an uncertain command of world oil markets. The adverse impact on domestic producers of gyrating world oil prices has been compounded by an energy policy, or more accurately put an absence of policy, which has destabilized domestic production, discouraged exploration for new fossil fuel resources, and reduced domestic proved oil reserves to the lowest level since 1950. Coupled with administration steps to curtail energy conservation programs and stronger demand for oil across the globe, these trends have significantly increased the vulnerability of the United States to an economic dislocation comparable to the 1973 embargo. Indeed, if the latest Department of Energy projections of worldwide demand and supply are to be believed, by 1990 OPEC will regain the same dominant position in world oil markets that it was able to exploit with such devastation in the 1970's.

Volatile prices and falling production

OPEC oil is the marginal barrel of oil worldwide and determines world prices, but warfare between Iran and Iraq has undercut OPEC efforts to limit oil production and maximize producer income in the 1980's through higher prices. Indeed, since peaking in 1981 at $37.05 per barrel, cheating on production ceilings by OPEC members caused the average U.S. refiner acquisition cost of imported oil to drop to $26.99 per barrel by 1985. Unsuccessful efforts within OPEC to discourage cheating caused prices to plunge further, to an average $13.98 per barrel in 1986 before prices rose to nearly $20 per barrel during the past peak summer driving period. Continued cheating within OPEC has caused prices to slump noticeably again over the winter, however.

These price gyrations have wreaked havoc on domestic oil firms, producing a wave of layoffs and budget curtailments across the industry over the past two years. Unemployment among some industry specialists like geologists rose past 30 percent, and oil-producing states like Texas were plunged into recessions. Domestic producers and their creditors remain skeptical about prospects for resolving OPEC price instability—instability which is hobbling both current and future U.S. oil production prospects.

After rising steadily since 1979, domestic oil production peaked in 1985. With small-capacity "stripper" well output dwindling as prices plunged, U.S. production fell 3.2 percent (347,000 barrels per day) in 1986 and an even larger 4.5 percent last year, according to the American Petroleum Institute, to the lowest level since 1977.

The administration viewed the operations of volatile world oil markets benignly during its first seven years in office. Real and nominal oil prices were declining, producing an immediate windfall gain to consumers, particularly in 1986 and 1987, and calming inflation fears. This detached approach has continued despite the growing evidence that market instability is dramatically heightening U.S. vulnerability.

Oil exploration activity has slumped even more dramatically than production itself as prices have fallen. The number of crews engaged in seismic exploration, for example, fell by nearly half in 1986—the steepest one-year drop on record—and slumped a further 15 percent last year. The number of exploratory and developmental wells completed in 1987 was down 60 percent from 1985. The 27,000 wells drilled last year—a third of which were dry holes—were the lowest number drilled since 1974. The CRS has projected that the weak exploratory performance last year added only 1.3 billion barrels to U.S. proved oil reserves, the smallest addition since 1977.

Domestic output declined in 1987. Even so, the 1.3 billion barrel added to proved reserves was so weak that total U.S. proved oil reserves slumped to 25.4 billion barrels, the lowest since 1950. The drastic fall in proved reserves in 1986 and 1987 contrasts with earlier years. Robust exploration had added to total proved reserves in 1984 and held them steady in 1985. But the domestic industry found replacements for less than one-half the quantity of oil pumped in 1986, and in 1987 barely two new barrels of oil were discovered for every five barrels pumped from the ground. The fall in reserves over the last two years is the steepest on record. As noted in Table 14, proved reserves have fallen more in the last two years than they have in the preceding seven years.

TABLE 14.—UNITED STATES PROVED PETROLEUM RESERVES

[Million barrels]

	Total U.S. wells completed [1]	Production [2]	Reserve additions	Proved reserves
Year				
1947	30,840	1,850	2,465	21,488
1955	55,917	2,419	2,871	30,012
1965	29,501	2,686	3,048	31,352
1975	38,880	2,886	1,318	32,682
1980	69,840	2,975	2,970	29,805
1981	90,030	2,949	2,570	29,426
1982	83,340	2,950	1,382	27,858
1983	75,030	3,020	2,897	27,735
1984	84,360	3,037	3,748	28,446
1985	69,130	3,052	3,022	28,416
1986	37,420	2,973	1,446	26,889
1987	27,000	2,821	1,301	25,821

[1] Exploratory and development wells.
[2] Excluding natural gas liquids.

Source: Congressional Research Service.

Reserve additions and domestic exploration activity are strong predictors of future oil output. The downward trend in both variables since 1985 has led industry analysts to project a continued slide in domestic oil production. Even the traditionally optimistic Department of Energy has agreed, projecting that U.S. oil output will fall one-third by 1995 under the current price regime. Most private forecasters are considerably more pessimistic because producers remain leery of continued price volatility.

Moreover, exploration and development of oil resources is a lengthy process; any marked recovery of oil prices followed by a period of stability will produce a turnaround in oil production only with considerable lag. The experience following the 1973 embargo is instructive here. The collapse of domestic exploration and production since 1985 resembles industry experience before 1973. While domestic exploration activity increased sharply in the mid-1970's as world oil prices strengthened, it took the domestic industry four years merely to stem the decline in output. Production inched up only slowly thereafter and never did regain the 1973 production peak before the collapse began in 1986.

Rising imports

The demand side of the oil equation has swelled with the continuing economic expansion. Annual increases in demand have averaged between 1 and 3 percent since 1983, with demand last year up 1.8 percent to top 16.6 million barrels daily. The growth in domestic demand has exceeded all expectations, with demand last year nearly hitting levels not predicted by the Department of Energy to occur until 1990.

With demand up briskly and production dwindling, the gap to be filled with imports has risen dramatically since 1985. U.S. oil imports on a net basis last year were 35 percent higher than in 1985. Last year, imports provided nearly 40 percent of total U.S. oil consumption, up from only 27 percent in 1985, and dependence exceeded 44 percent in the peak driving months last summer.

Virtually every public and private forecast now predicts that the U.S. economy will be dependent on foreign supplies for more than one-half its petroleum within a handful of years. Under the current price regime, for example, the Department of Energy projects that imports will exceed domestic output by 1993, and by 1995 will top 57 percent of consumption. Other forecasters, including the CRS and the American Petroleum Instittue, expect the crossover to occur sooner, perhaps as early as 1990.

Vulnerability of OPEC

Rising oil imports need not translate directly into heightened vulnerability if they originate with traditional supplies like Canada, Mexico, and Venezuela, nonparticipants in the 1973 OPEC embargo. But the massive surge of imports since 1986 has overwhelmed the capacity of these traditional neighboring producers to satisfy U.S. demand, even if all their exports were purchased by U.S. consumers. As the only producer with excess capacity worldwide, OPEC has filled the U.S. import gap, providing nearly 9 of every 10 new U.S. import barrels since 1985. This has boosted U.S. imports OPEC oil by nearly half, to 17 percent of total U.S. consumption. Since OPEC currently provides virtually all new U.S. oil imports, the rising tide of imports translates directly into a sharply higher level of U.S. vulnerability.

Vulnerability to oil shocks is increasing even more sharply abroad. Demand for oil in Europe, Japan, Canada, and the developing world of some 29 million barrels per day is about double the U.S. level. Total non-OPEC production—even including net exports from the Soviet Union and other centrally planned economies—

barely meets one-half that demand. Taken in isolation, Europe produces four million barrels a day, according to the Department of Energy, sufficient to satisfy barely a third of its daily demand of 12 million barrels.

OPEC provided 56 percent of world oil production in 1973, most from low-cost Middle East fields, and utilized about 80 percent of its capacity to do so. But the many-fold explosion of world oil prices following the 1973 embargo sparked a renaissance in non-OPEC oil production. Promising and costly provinces free of OPEC influence across the globe were scoured and exploited. As a result non-OPEC production soared 50 percent in the 1970's as nations like the United Kingdom and Norway became major producers at the higher OPEC prices. By 1985, OPEC's share of world production had dwindled to only 30 percent, with total OPEC production down one-half from a decade earlier, and only 60 percent of OPEC capacity utilized.

Resource limits for most known non-OPEC oil soures are now apparent, however, and few prospects currently exist for substantial further increases in production in the years ahead. A significant share of the new non-OPEC production introduced following the 1973 oil shock was high-cost capacity from offshore and so-called frontier regions. Stagnant or declining production in most of these maturing areas is forecast for the years immediately ahead by the Department of Energy (Table 15).

TABLE 15.—OPEC CAPACITY UTILIZATION

	Capacity rate (percent)	Import price (per barrel) [1]
1970	62	$2.96
1971	67	3.17
1972	70	3.22
1973	80	4.08
1974	80	12.52
1975	70	13.93
1976	80	13.48
1977	83	14.53
1978	81	14.57
1979	90	21.67
1980	90	33.89
1981	81	37.05
1982	70	33.55
1983	65	29.30
1984	65	28.88
1985	60	26.99
1986	65	13.98
1990	[2] 82	
1995	[2] 90	

[1] Refiner acquisition cost.
[2] Department of Energy projection

Source: Department of Energy.

Overall, non-OPEC production at present price levels is projected by the Department of Energy to fall nearly 20 percent between 1985 and 1995, or by more than five million barrels daily, even though worldwide oil demand is projected to rise by 6.6 million barrels per day.

Oil and the trade balance

The preciptious 50 percent decline of imported oil prices during early 1986 reduced the adverse impact of oil imports on the U.S. trade balance. Overall, crude petroleum and product imports of $37.6 billion in 1986 represented an amount comparable to 24 percent of the U.S. trade deficit that year. Oil import prices rebounded modestly last year, and coupled with the 3 percent increase in import volume, the value of oil imports jumped 20 percent to $45 billion—double the rate for all imports and representing 26 percent of the 1987 trade deficit. With oil imports projected to continue rising as U.S. oil dependence increaes, petroleum imports will increasing offset improvements in the merchandise trade balance and exacerbate pressure from U.S. consumers on world capital markets.

The risk of oil shock

Steadily rising dependence of OPEC carries with it the risk of a repetition of the shortages and skyrocketing fuel prices with weakened Western economies in the 1970's. The most significant precondition to a return of OPEC market dominance is its own rate of capacity utilization. As noted in Table 15, the 1973 embargo and subsequent oil price escalation through 1981 coincided with an OPEC rate of capacity utilization exceeding 80 percent.

The Department of Energy is projecting that, based on demand trends and shrinking non-OPEC production summarized in Table 16, OPEC will once again reach that rate of capacity use in the next two to three years.

TABLE 16.—NON-OPEC PETROLEUM PRODUCTION AND WORLD DEMAND

[Million barrels]

	Non-OPEC supply				
	United States	Europe	Other [1]	Total	World demand
Year:					
1985	11.2	4.3	13.0	28.5	46.4
1990	9.2	3.7	12.6	25.5	50.4
1995	78.6	3.2	12.5	23.3	53.0

[1] Canada, Oceania, Non-OPEC developing nations and centrally-planned economies.

Source: Department of Energy. These data include all refinery gains and natural gas liquids as well as crude oil production.

OPEC-engineered supply shortfalls in the 1970''s were transitory, but the impact of the 1200 percent OPEC price hikes was dramatic and sustained as the effects swept through the world economy, substantially eroding real incomes. In the United States, the higher OPEC prices precipitated a steep recession, cutting GNP growth by 0.5 percent in 1974 and 1.3 percent in 1975. Soaring oil prices also played a major role in the milder 1980 recession as well.

The severe recession following the 1973 embargo has been extensively examined by George Perry of the Brookings Institution and others. The CRS has updated several of the Perry analyses, which used both the Federal Reserve econometric model and a different model at the University of Michigan, in an effort to simulate the impact in current dollars should an oil shock recur.

Table 17 projects the costs of an oil price shock. GNP growth could drop 1.5–1.9 percentage points this year, and another 1.0–2.2 percentage points of growth next year, representing more than half a trillion dollars in foregone output. Unemployment could rise as much as 2.2 percentage points, increasing unemployment by 2.5 million persons.

TABLE 17.—IMPACT OF AN OPEC OIL PRICE SHOCK IN 1987 1988–1991

[In percent]

Model	GNP Loss		Unemployment Increase			
	1988	1989	1988	1989	1990	1991
Perry/FRB	1.9	1.0	0.8	1.3	1.8	2.2
Perry/Mich	1.5	2.2	.4	1.4	1.8	1.5

Source: Congressional Research Service.

Policy options

Numerous opportunities to fend off or even avoid rising dependence on OPEC exist, involving the demand as well as the supply side of the energy equation.

IX. CONCLUSION

American economic policy was sharply transformed during the 1980's. In retrospect, it is clear that most of the radical departures in economic policy implemented during this period did not live up to expectations: growth did not accelerate, investment did not rise, savings fell, budget and trade deficits soared, and productivity growth remained lackluster.

It is also clear that the changes of the 1980's have left a series of important economic problems which will be the focus of future debates on economic policy. The Federal fiscal deficit is only the most obvious of a series of problems growing out of excessive debt accumulation and increased fragility in the financial sector. The U.S. trade deficit is only the most visible of the enormous imbalances in the world economy which threaten global trade and global prosperity. Reducing both these deficits will be a difficult task, at best, and could turn into a real hardship if either the U.S. or world economies were to experience a recession during this period of adjustment.

Working our way out of the problems posed by the budget and trade deficits in a steady and responsible manner will be impeded by other "deficits" which have grown during the 1980's. We face a major deficit in investment in manufacturing. We face a "deficit" in civilian R&D, as compared with a number of other key industrial countries. We face a "deficit" in the Nation's physical infrastructure in the form of a deteriorating transportation network and antiquated water and sewer systems. We have a serious deficit of information about our economy and the economies of our competitors due to inadequate support of Federal statisical programs. Perhaps most important we face a serious "deficit" in our stock of human capital, following years of neglect of education and skill-training for the American work force.

But we will also carry forward into the 1990's a deficit in social cohesion which is a major legacy of the past seven years. Through both the recession and the recovery, economic policies have worked to widen the inequalities among our citizens. Many facilies have been hard-pressed to make ends meet, while others have experienced generous income growth. The result has been widening of the income gap between families unique in the post-World War II period.

THE CHALLENGE OF THE 1990'S

These critical deficits were build up over a number of years. They will not be rectified quickly. Next year, a new administration will take over the task of managing American economic policy. Of necessity, this new administration will need to review the performance of the past and attempt to shape a new set of policies designed to meet the challenges of the 1990's. The consequences of current policy, outlined in this Report, mean that new directions must be found to meet these challenges effectively.

As this Report has indicated, we face two major economic challenges. They are difficult and compelx. The first is to rectify the extraordinary economic imbalances that have developed in recent years and to rebuild the sense of social cohesion and economic justice which has traditionally been an American trademark.

The second is to find effective ways of responding to the new realities of international economic competition and world market integration. The strength of our position in the international economy cannot be separated from the strength of our domestic economy, and therefore we must address our domestic investment deficits in order to enhance our competitive ability. Furthermore, our new status as a debtor nation has already weakended our bargaining position in international negotiations. Improvement in our international position is unlikely without new initiatives in the areas of international debt, monetary reform, a more equitable sharing of the burdens of maintining world military and economic security, and sustained worldwide economic growth.

These two broad challenges lead to a number of specific principles which, in the Committee's view, should shape the future debate on economic policy. A number of these recommendations have been made in previous Annual Reports. They deserve to be reemphasized in the context of the new economic policy debate which will take place with the advent of a new administation.

1. Reducing the Federal deficit must be a major national economic priority. In pursuing the vital objectives of deficit reduction it is important not to neglect other priorities. The route to credible and sustained deficit reduction must also pay adequate attention to needed investments in our economic future.

2. Major changes in our trade performance are required over the next decade. The trade balance must improve sharply in order to compensate for a growing interest-payment burden on our foreign debt and to stabilize and reduce that external debt. This task will fall largely on the manufacturing sector, which will need a substantial acceleration in both productivity and capital formation as

well as appropriate exchange rates and a stable international monetary environment.

3. Monetary policy is heavily constrained by the legacy of the past macroeconomic imbalances. The Federal Reserve must maintain adequate domestic economic growth, while providing credibility in international capital markets with respect to the value of the dollar and the rate of inflation in the United States. Substantial progress on reducing the budget and trade deficits will be necessary to ease this complex task for the monetary authorities.

4. Improvements in trade will require improvements in both the content and the administration of American trade law. Effective measures are needed to open world markets and keep both world and American exports growing at a healthy pace.

5. Strong domestic growth has been inhibited by heavy burdens for international military and economic security. Achieving a responsible redistribution of these international obligations commensurate with relative economic strengths of Alliance members must be a major policy objective for the future.

6. The growing integration of the U.S. economy into the broader world economy increases the need for effective American economic diplomacy. Multilateral agreements are needed on fiscal and economic policy coordination, mechanisms for maintaining overall world growth, and strengthening multilateral economic and financial institutions.

7. The Third World debt problem continues to be a major strain on the world economy and a threat to financial stability. Debtor countries need improved abilities to finance their internal growth, and the world economy needs expanding markets in the developing nations. Comprehensive and multilateral solutions to the debt crisis must replace the present piecemeal approach to this problem.

8. America's growing dependence on international sources of energy creates substantial threats to our economic stability. Increased vulnerability to external price shocks or supply interruptions is a serious economic liability which stems directly from current policies. Energy self-sufficiency should be a priority concern of economic policy in the 1990's.

9. The rapid deteriorations of the farm economy during the 1980's continues to hamper overall economic growth and serves to worsen regional inequalities. Revitalizing agriculture has the potential both to improve income and employment in much of rural America and to reduce the U.S. trade deficit; it will require concerted efforts to rebuild export markets and take advantage of America's comparative advantage in agricultural production.

10. Future economic growth depends on expanded investment by both the private and public sectors. Public initiatives are needed to improve the quality of education and the skills of the work force, restore the Nation's physical infrastructure, and expand research and development.

11. Accurate and timely information about the economy is essential for effective policymaking. Renewed attention must be paid to strengthening the Federasl statisital agencies and safeguarding the integrity of the statistical information base.

12. Finanical innovation has helped to create a climate of uncertainty and potential instability in both domestic and international

captial markets. There is an urgent need for a comprehensive reexamination of policies affecting captial markets in order to assure both market efficiency and improved coordinations of policies across markets.

ADDITIONAL VIEWS OF SENATOR LLOYD BENTSEN

I congratulate Chairman Sarbanes and the staff of the Joint Economic Committee for producing a broad review of economic events during this debate. The Report presents a distinctive perspective on these events. And while I do not agree with some aspects of this presentation, the Committee deserves credit for exploring the unprecedented challenges to our prosperity posed by the twin trade and budget deficits. These Additional Views clarify some of the areas where my own views differ from those presented in this Report.

Defense preparedness: I supported administration steps this decade to enhance military preparedness, and am not convinced that they inhibited economic growth. Those steps have generally been successful enough to now set the stage for a modest slowdown in the pace of defense spending. That is why I endorsed the President's decision during negotiations leading to the budget compromise last December to hold the growth of defense spending over the next several years to the level of inflation.

Budget deficit and spending: The Report correctly notes the debilitating economic impact of the enormous budget deficits incurred during this decade. Our Nation will long bear the burden of relatively weak real income growth due to these deficits, which have risen to unprecedented levels, and hobbled capital formation and productivity growth. Steps to shrink these deficits included controls on Federal spending. And the Report contends that a variety of Federal responsibilities have been short-changed in recent years as a consequence, including worker training and retraining, highways and bridge maintenance, and literacy programs. Spending levels on health, air safety, civilian research and development, and education are criticized as well. I do not completely agree with this criticism. The budget crisis poses a real danger to our national economic health, and restrained Federal spending is the key to resolving that crisis.

Third World debt: Shrinking the Federal budget deficit will reduce interest rates and ease the debt crisis confronting the developing nations as well. As I indicated in my Additional Views in the *1987 Annual Report,* rapid progress in shrinking the Federal deficit may avoid the need for an elaborate multilateral approach to this problem.

International economic coordination: Growing interdependence of the world economy has heightened the dangers to our economy of unilateral economic policy actions abroad. A more extenisve exchange of information between major industrialized nations can strengthen the world economy. But I oppose the creation of binding multilateral agreements with foreign nations which would hamper domestic economic policy. Moreover, the Federal budget deficit crisis should take priority over steps to financially strengthen multilateral economic and financial institutions.

Economic equality: The Report suggests that income equality has eroded this decade due to stagnating real incomes for workers, perhaps even exacerbated by income tax law changes. That conclusion is controversial, especially since the 1986 tax reforms benefited millions of lower income families who were removed altogether from income tax rolls. The solution to questions of income equality is economic growth. Debates over how to achieve a growing economic pie are preferable to debates over how thinly to slice a stagnant one. One sure way to accelerate economic growth is to expand exports and the high-wage jobs which go with them. For that reason, the Report's criticism of the vacuum in administration trade policy is appropriate. The Report cited Bureau of Labor Statistics data showing that 3.4 million jobs in the high-wage manufacturing, mining, transportation, and communication sectors were lost between 1979 and 1985 while 3.5 million jobs in the low-wage service sector were created. The deepening trade deficit played a prominent role in that job deterioration. And rapidly restoring balanced trade through dramatic gains in exports—which is a key goal of the trade reform legislation enacted by this Congress—is a major answer to the debate over issues of income equality.

Energy: The Report correctly notes that "America's growing dependence on international sources of energy creates substantial threats to our economic stability." Continued progress toward efficiency in energy use is important, but steps to stabilize oil prices and boost conventional domestic oil and gas production are critical to stemming rising American dependence on OPEC oil. Foremost among these steps would be an oil import fee to replace uncertainty and price volatility in the Oil Patch with predictability for oil exploration and production. Repeal of the misnamed windfall profits tax is appropriate as well to remove a major disincentive hobbling producers. The Committee's support for enhanced oil recovery research is appropriate. A national energy policy designed around a muscular oil extraction technology research effort is needed to capture the billions of barrels remaining in high-cost reservoirs throughout America, and open a sure path to greater energy independence.

ADDITIONAL VIEWS OF REPRESENTATIVE AUGUSTUS F. HAWKINS

I commend Senator Sarbanes, the JEC staff, and the other Members of the Committee for producing a comprehensive and accurate analysis of the American economy in the 1980's. This Report is right on target. In an unbiased way, it clearly shows the true extent and depth of the economic consequences of seven and a half years of unbalanced economic growth, and skewed national priorities.

While I totally agree with the Report's analysis that substantiates the need for a reordering of present priorities and policies, I am disappointed that we do not take the next step, and set forth a plan to accomplish such alternatives. The Employment Act of 1946, as amended by the Full Employment and Balanced Growth Act of 1978, clearly enables the Joint Economic Committee to make very specific policy and programmatic recommendations to achieve balanced economic growth through pursuing policies that result in full employment and price stability.

The statute establishes a goal-setting procedure to be the vehicle for recommending policy priorities, and sets timetables for achievement of the goals in order to hold policymakers accountable for their decisions. The Joint Economic Committee should not hesitate to include specific policy and programmatic alternatives for reaching 4 percent unemployment and 3 percent inflation in its Annual Report on the Economic Report of the President. Current economic circumstances clearly show the need for such action.

As this Report has shown, the unbalanced, uncoordinated economic decisionmaking that has characterized the 1980's has left us with an economic legacy that will take several years to turn around. The Joint Economic Committee can and should provide the leadership for this effort.

MINORITY VIEWS

Republican Joint Economic Committee Annual Report

I. INTRODUCTION

The economy is now well into its sixth year of expansion, the longest peacetime expansion in our history. Inflation is under control and investment is strong. The economy has spawned four million new businesses since 1981 and has shrugged off Black Monday. Most importantly, the economy has generated 15 million new jobs, and real median family income has climed 10.7 percent since 1982. The foundation of any economy is a people at productive work. Never has the foundation of our economy been stronger.

Republican economic policies have successfully reversed the disastrous trends in inflation, interest rates, unemployment, productivity, poverty, and many others of the late 1970s. Six months ago in our midyear review of the economy, we Republican Members of the Joint Economic Committee expressed our serious concerns regarding the trade and budget deficits. Of late, trends in the U.S. trade deficit have also been encouraging. Unfortunately, the one remaining major economic challenge—the budget deficit—lies in the domain of the Congress and out of reach of the rational discipline of competitive free enterprise.

Much has been said—and we expect will continue to be said—about the declining economic and political stature of the United States in the world. Advocates of this view lament the diminishing economic gap between the United States and many developed and developing nations, such as Japan, South Korea, West Germany, and Taiwan. We, however, applaud this global cloning of American democratic capitalism. Even the Soviet Union, some Eastern Bloc countries, and China are experimenting with the American way. This movement toward economic parity can only improve the whole world's standard of living and therefore encourage the propagation of democracy, freedom, and peace. Imitation is a compliment, not a threat.

This rapid replication of competitive economies has changed the fundamental structure of the world economy. To explain this changing environment, our report presents a conceptual framework to view emerging U.S. and world economic events. We offer this discussion in our effort to gain a better understanding of the evolving nature of the U.S. and world economy. Sound policies require thorough comprehension and insight into the nature of a more complex world economy, where the consequences of national policymaking reverberate beyond borders. We do not claim to have all the answers, but we do believe we have begun to ask some of the right questions.

II. ECONOMIC REVIEW & OUTLOOK

The current expansion is now well into its sixth year. And very few professional economic forecasters see this expansion ending in 1988, or in 1989 for that matter. The April 1988 consensus forecasts of the Blue Chip Indicators, a composite of more than 50 forecasting firms, projects that real gross national product (GNP) will be up 2.7 percent in 1988 and 2.2 percent in 1989. It is informative to note that the composite GNP forecast by essentially these same firms a year ago for 1987 was 2.3 percent. Real GNP actually grew by 2.9 percent in 1987 (4.0 percent fourth quarter to fourth quarter).

This chapter presents an economic review using an historical perspective of 12 key economic trends and an economic outlook.

Economic growth

In 1987, the U.S. economy grew with a strength that surprised almost all forecasters and analysts. Inflation-adjusted gross national product grew at a 4.8 percent annual rate in the fourth quarter, as the expansion entered its sixth year. Several factors comprise the current economic growth picture, and the trends are mixed but positive. First, real exports are up. Posting a $16 billion (1982 dollars) increase in the fourth quarter, exports of goods and services in 1987 were in the $426 billion range on an annual basis, compared to $377 billion for 1986. Second, real gross domestic purchases increased by almost $100 billion during 1987, benefiting domestic producers even more. While personal consumption expenditures declined by some $20 billion, real gross private domestic investment was up $35.3 billion during the fourth quarter of 1987.

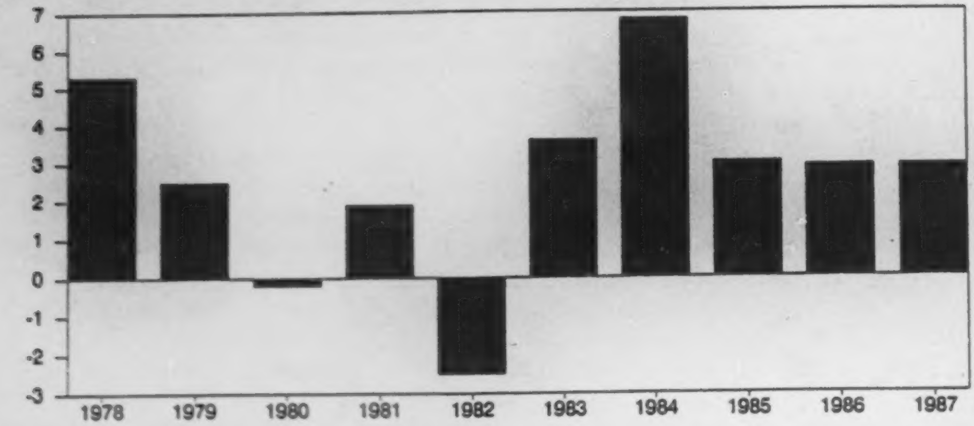
In summary, economic growth in 1987 has been reliant on consumer activity than in previous years. The welcomed increased in exports and a continuation in investment has made GNP growth more balanced.

The economic recovery beginning in November 1982 has already surpassed the peacetime record duration, and shows few if any signs of weakness. In real terms, GNP has grown at a 4.2 percent compounded annual rate for the past five years (1982-IV through 1987-IV). That exceeds the most popular benchmarks, such as the 3 percent postwar average or even the 3.8 percent of the 1960s. Our growth record is even more remarkable given the economic crisis set off in the late 1970s, which led to a severe cutback in the necessary ingredient for sustained growth—investment.

Chart II.1

REAL GROSS NATIONAL PRODUCT

Percent Change from Previous Year



SOURCE: Bureau of Economic Analysis

Dissatisfaction in the stagflation and malaise of the latter 1970s contributed to Ronald Reagan's election in 1980. He promised and delivered new economic policies. Tax rates and excessive regulation were reduced, providing a firm foundation for economic recovery. Once these policies took effect, the economy began its remarkable turnaround. The current economic expansion is far from over. Instead, it offers a solid foundation for future growth and prosperity. So long as business and consumer confidence is accompanied by wise public sector leadership, it is likely to continue for years.

Trade performance

International trade has come to occupy an increasingly significant role in the United States, the world's largest economy. Since 1978, U.S. exports have generated between four and five million new jobs for American workers, while strong consumer and business demand in the U.S. has triggered huge import surges into the country.

The U.S. trade position—the balance between exports and imports—has also changed dramatically since the late 1970s, moving from net merchandise imports of about $42 billion in 1978 to this year's projected deficit of between $165 and $170 billion. Why the change? The most significant reason is to be found in divergent growth patterns separating the United States and its trade partners. Compared with the rest of the world, U.S. economic performance has been impressive throughout most of this decade. As a result of our expansion, the United States helped pull the rest of the world out of deep recession by providing a vital market for developed and developing country exports. Over the past six years, most of our partners have relied on export sales to the United States for between one-quarer and one-half of their domestic growth.

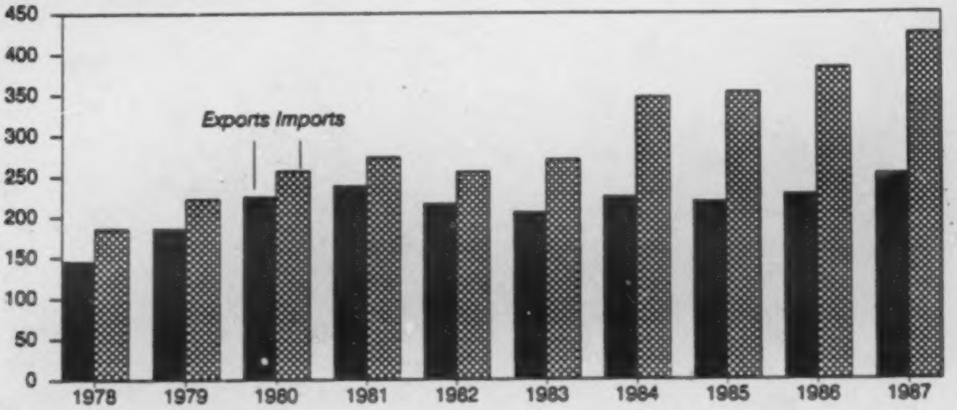
With improving rates of world economic growth, the United States will return to balance in its trade account. In terms of sheer volume, our exports have actually been rising since the end of 1984 at an annual rate of 5 to 10 percent. They should continue to do so. At lower-dollar exchange rates, these volume gains translate into corresponding dollar earnings—through a continued growth in U.S. export volumes, particularly in the agricultural, high tech, and consumer goods sectors, where the United States continues to enjoy a comparative and competitive advantage.

The past decade has witnessed a steep rise in the U.S. trade deficit, with the largest jump occurring between 1983 and 1984, the rate of increase in the U.S. trade deficit has been falling. Despite continued import demand and weak overseas expansion, there was little change in the overall magnitude in the U.S. merchandise trade deficit between 1986 and 1987.

Chart II.2

U.S. EXPORTS AND IMPORTS

Billions of Dollars



SOURCE: Commerce Department

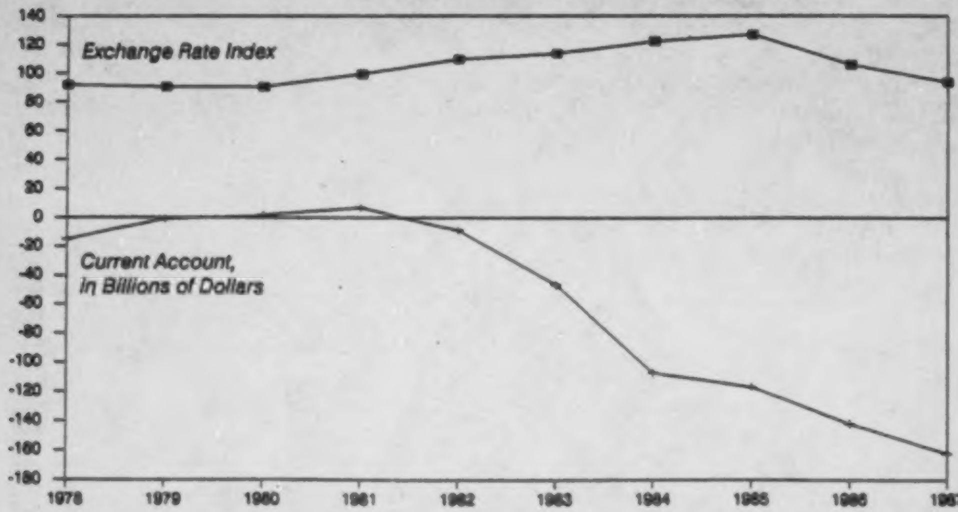
The dollar

This country's trade picture has been blamed on many factors including misguided U.S. economic policy, a supposed deteriorating quality of American exports, and unfair trading practices by other nations. The most important factor, however, was the relative price increases of U.S. exports due to a 40 percent rise in the value of the dollar from 1980 to 1985 against the currencies of America's most important trading partners. According to a Brookings Institution survey of leading economic models, the dollar appreciation caused up to three-quarters of the shift in the U.S. current account. The Congressional Budget Office has testified before the Committee with similar findings.

Why was the dollar so strong? Traditional economic theory argues that exchange rates are determined primarily by changes in the current account, which would be caused by disparities in income growth and inflation between the United States and its trading partners. So a U.S. current account deficit meant an excess foreign supply of dollars, which should cause a depreciation of the currency. But in recent years exchange rates have moved independently of and sometimes counter to the current account. As shown in the accompanying Chart II.3, the dollar continued its rapid ascent from 1982 to 1985 despite a widening current account deficit.

Chart II.3

U.S. CURRENT ACCOUNT & EXCHANGE RATE INDEX



SOURCE: Commerce Department

Many analysts now understand the world's foreign exchange market, and not trade, is the primary determinant of exchange rates, and demand for dollars by foreign investors during the 1980s caused the dollar appreciation. One reason for the rising importance of foreign exchange markets is their size. A survey by the Federal Reserve Bank of New York (U.S. Foreign Exchange Market Turnover Survey, March 1986) estimates that U.S. foreign exchange transactions were 10 times the sum of U.S. exports and imports in 1983. Another reason is that with the general liberalization of foreign exchange controls, especially in Japan and Great Britain, capital can now flow across borders far more easily than goods can, which are impeded by trade restrictions. Finally, demand for Euro-currency assets soared with the acceleration in financial innovations that substantially reduced the costs and risks of owning them. Demand for dollar assets was particularly strong during the 1980s and U.S. interest rates, as well as foreign Eurodollar rates, were high because the American economy was characterized by strong growth, low inflation, and an improved taxation climate.

By early 1985, however, the demand for dollar assets had pushed the currency to 3.3 West German marks and 250 yen and there was widespread agreement that the dollar had nowhere to go but down. The interest rate gap between U.S. dollar-denominated and foreign-currency assets began to narrow and no longer compensated investors for the risk involved in holding dollars at their exchange rate peak. As a result, the dollar has fallen over 30 percent from February 1985 through October 1987 against the currencies of 15 of America's trading partners. Furthermore, in September 1985, officials from the Group of Five (G–5) major industrialized countries agreed to join in coordinated exchange market intervention aimed at reducing the dollar's exchange rate. The fall occurred notwithstanding attempts such as the Louvre Accord in February 1987 to stabilize exchange rates.

As long as the U.S. trade balance is the focus of concern, the world's markets are likely to expect a continued dollar decline. Not surprisingly, private investment by foreigners in U.S. Treasury securities declined from a net inflow of $10.7 billion during the first two quarters of 1986 to a net outflow of $4.1 billion during the first two quarters of 1987. The world's financial markets will continue to gyrate with any news that indicates an impending dollar decline.

Interest rates

The trend in interest rates is always of concern to businessmen and investors because of the immediate impact it has for the costs of carrying inventories and financing capital investment, as well as for asset values in financial markets. But the trend in interest rates is also important in interpreting the outlook for the economy in 1988. It has been found that a year in which interest rates tend to rise is always followed by a year in which growth in nominal GNP slows, and that a year in which interest rates tend to fall is always followed by a year in which growth accelerates.

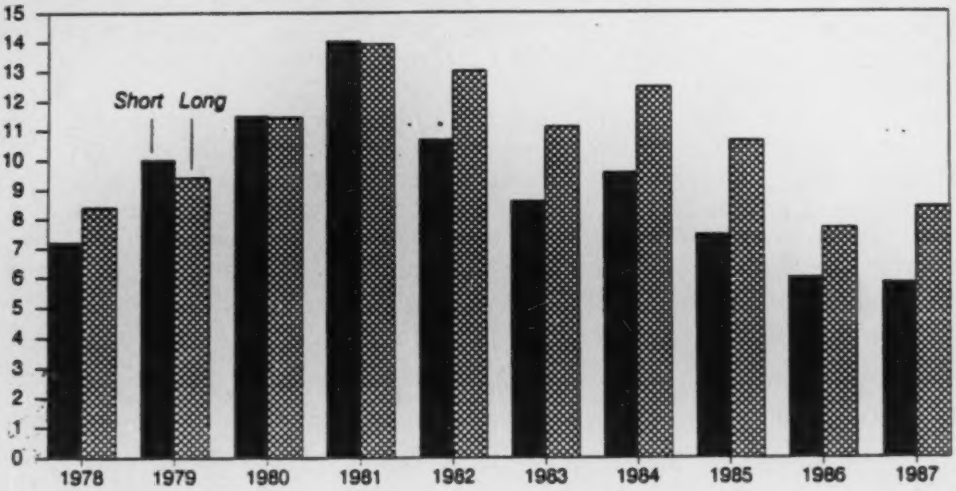
Following the historical peak in both long- and short-term interest rates in 1981, there has been a marked improvement. The onset of the 1981–82 recession and the precipitous end of inflationary expectations marked the steepest decline in recent history, from the peak in long-term Treasury bond rates of 13.9 percent in 1981 to 11.1 percent in 1983. The very strong growth of 1983 and 1984, however, briefly halted the fall in interest rates. Interest rates then began to move up once again, but a moderating expansion since 1984 has reinforced a gradual settling of long-term bond rates to the 7–8 percent range, which was reached in mid-1986.

Last year saw a great deal of uncertainty in the bond market as various forecasts of renewed inflation on the horizon, faster economic growth in 1987–88, and unfavorable international trends in capital movement have become common. From January through October, 1987, both short-term and long-term interest rates moved higher. The low of the decade in long Treasury bond rates was 7.08 percent in January 1987, but by mid-October those rates were above 9.5 percent.

Chart II.4

SHORT & LONG TERM INTEREST RATES

Yearly Average Yields on 3-Month & 10-Year Treasury Issues



SOURCE: Treasury Department

A sharp dip in both short- and long-term interest rates followed the events in the stock market in mid-October, but it is not clear whether the rising trend of the first three quarters of 1987 had been reversed or whether it was merely halted momentarily. The prime bank lending rate has declined to 8.5 percent, however, and this seems to portend a downward trend.

Inflation

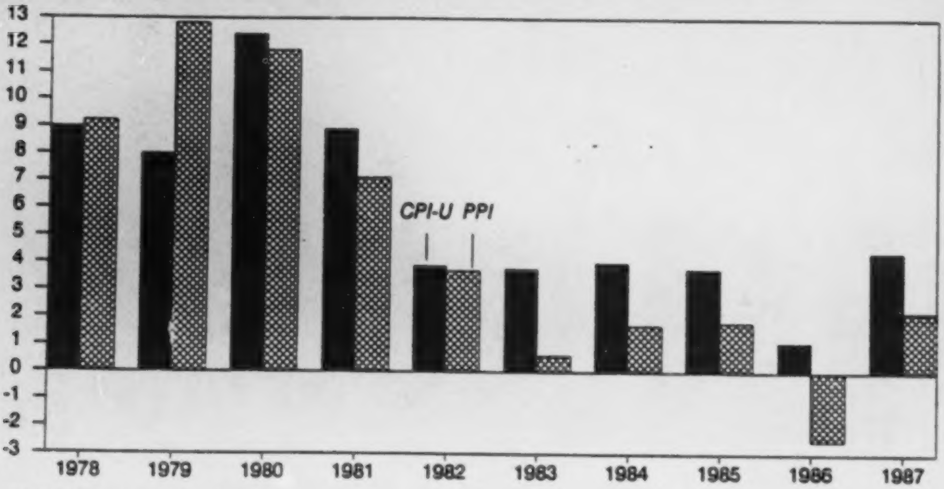
The crushing of inflation is one of the major achievements of the Reagan presidency. From a peak in 1979 with double-digit rates of increase in both consumer prices and the wholesale prices of finished goods, the inflation rate has held steady at 4.5 percent or less since 1982. The CPI–U was 4.4 percent in 1987.

The dramatically small increases in 1983–85, followed by an actual decrease in wholesale prices of finished goods in 1986, led to an increase in the Consumer Price Index in 1986 of only 1.1 percent. Five years of good news on the inflation front, however, has in itself begun to prompt the question, "how much longer can it last?" Price experience in 1987 has been interpreted as the beginning of the end, but in fact the rate of increase in both the Consumer Price Index and the Producer Price Index in 1987 just represents a resumption of the 1982–87 trend rate, after the better-than-average experience of 1986.

Chart II.5

INFLATION FOR CONSUMERS & PRODUCERS

As measured by the Consumer Price Index & the Producer Price Index, Percent Change from Previous Year



SOURCE: Bureau of Labor Statistics

There are sufficient reasons to worry about a resumption of inflation with the decline in the foreign exchange value of the U.S. dollar and the increase in commodity prices that have occurred last year. A lower dollar in 1987 suggests the U.S. price level will have to rise more rapidly than the price level in the rest of the world, at least for internationally traded goods such as oil, minerals, and agricultural products. But over 60 percent of the input to the productive process in the U.S. is labor, and unit labor costs actually declined during 1987 by 3.8 percent. The likelihood that rising commodity prices, or the relative prices of imported goods, will be reflected in a sharp resumption of consumer price increases above the levels of the past five years is therefore small.

Moreover, the hypothesis that the root cause of inflation is too much money chasing too few goods is also working in favor of the slow inflation rate, because the Federal Reserve moderated the rate of growth in the money supply during 1987.

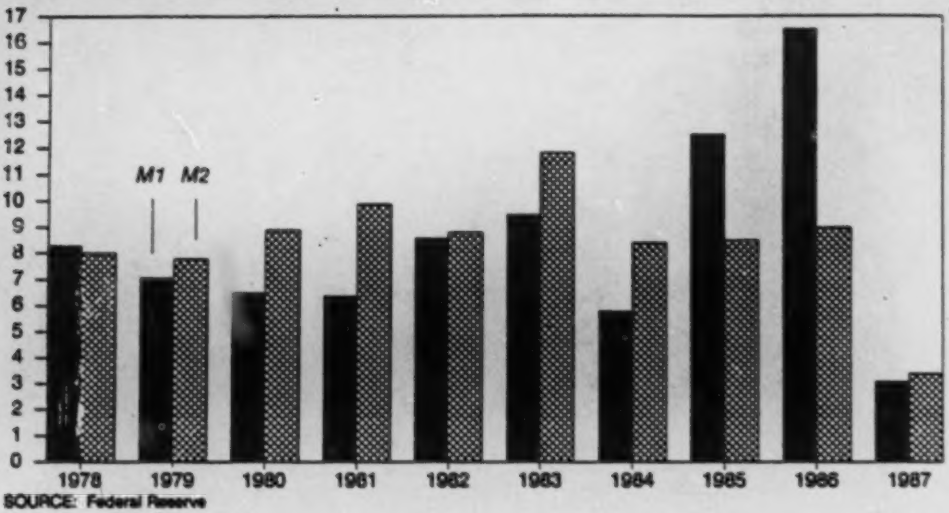
Monetary Policy

During the 1970s the pervasive, international evidence of a close, casual relationship between rates of increase in a nation's money supply and its nominal gross national product became strongly persuasive to policymakers. The increasingly severe inflation of the 1970s heightened this awareness of monetary policy as an important factor. The Humphrey-Hawkins Act of 1978 even imposed a formal reporting system on the Federal Reserve for monetary growth targets, although the independence of the Fed to conduct monetary policy was not impaired.

Chart II.6

MONEY SUPPLY GROWTH

Percent Change from Previous Year



SOURCE: Federal Reserve

In October 1979, the Federal Reserve itself espoused the monetarist theory, emphasizing the rate of growth of M–1 or M–2 as one of its central concerns. This public shift in emphasis provided the Fed with an important new degree of operating freedom, to allow interest rates to peak without exciting financial market expectations of added liquidity to moderate them, which would have been normal under the Fed's procedures as they had been implemented throughout the postwar era.

As the monetary growth rates in the disinflationary period since 1979 indicate, however, it has not been restraint on the monetary aggregates that has led to a reduction in inflation. In recent years, both M–1 and M–2 have continued to grow at annual average rates substantially the same as during the late 1970s, and have even grown at double-digit rates in some years. This important change in the relationship between money supply and nominal GNP, and between the two components of nominal GNP—the real GNP and inflationary price increases—has stimulated much productive research among economists both at the Federal Reserve and in the private sector. The traditional relationship between "transactions money" and nominal GNP has been found to be as consistent as ever, but "transactions money" is no longer identifiable as M–1. The marked slowdown in the monetary measures during 1987 may not, therefore, reflect an alarming change in Federal Reserve policy but rather a decline in the demand for non-transactions balances (an increase in the velocity of money, which slowed significantly in the early 1980s), and an accommodation by the Fed to these changes in money demand.

With the increasing pace of change in financial services, and the internationalization of currencies and capital markets, an important "measurement problem" has arisen. It is difficult to know what constitutes the relevant money supply for economic policy. Increasingly, moreover, dollar balances in our banking system support transactions overseas and dollar balances overseas finance capital investment in the United States. The remarkable achievement of the Reagan era in ending inflation and stimulating economic growth consists in shifting the effect of a monetary increase into more of a real GNP increase and less of a price level increase than occurred in the 1970s.

Saving

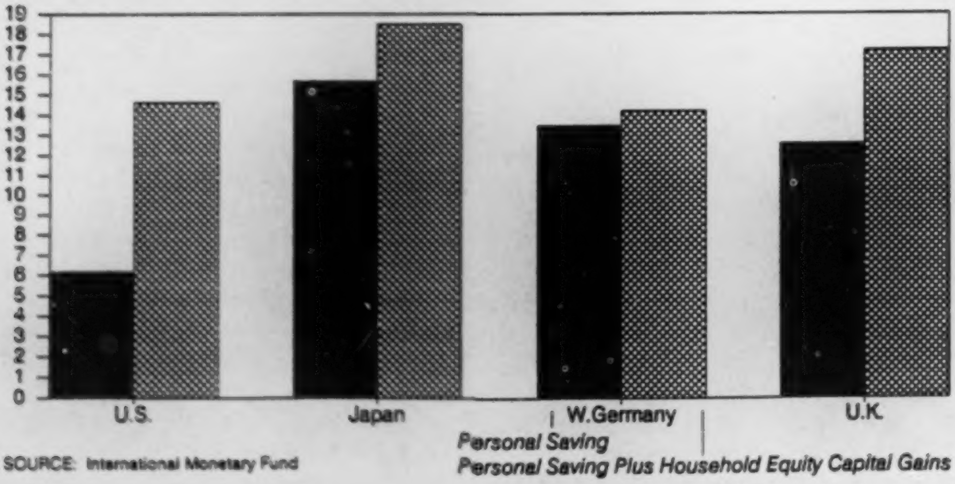
Saving is economically important because it is a major source of capital formation and economic growth, hence a higher future standard of living. Saving is often defined simply as the difference between income and consumption, but economic income is consumption plus the increase in net wealth. Thus, increases in net wealth can be viewed as saving, even if consumption also goes up.

The Department of Commerce subtracts consumption from disposable personal income to derive the most commonly cited measure of saving. This amount of saving, divided by the amount of disposable income, generates a personal savings rate. Thus, measurements of saving are a residual determined by the amounts of income and consumption. Any distortion or innaccuracy in measurement of these two aggregates will result in a misleading savings measure.

Chart II.7

INTERNATIONAL SAVING COMPARISONS

Average Annual Rate, 1979-1986



SOURCE: International Monetary Fund

While the measurement of U.S. personal savings in national income accounts usually compares somewhat unfavorably to that of other major economies, the inclusion of capital gains into savings changes the situation considerably. According to the Bank for International Settlements, this broader definition of savings puts the United States much closer to Japan and other nations.

Another difficulty with the focus on personal saving is that it does not include business saving. The addition of business saving clearly is a more accurate measure of total saving. Gross private domestic saving, which includes business saving, has grown from $409 billion in 1978 to $674 billion in 1986, an increase of 65 percent. Any strong increase in business saving would tend to be considered by stockholders in determining their plans for personal saving. For example, a change in the law providing more generous depreciation rules, such as the Accelerated Cost Recovery System (ACRS) under the 1981 tax law, permitted firms to retain more funds for reinvestment. This amounts to an increase in business saving, which stockholders may regard as an increase in their net wealth.

Even this approach can be considered unduly narrow. Some economists have argued that consumer durable expenditures, balances in social security, and pension funds should also be considering saving. The point here is that measurement of saving is subject to many definitional issues that affect relative national savings rates. In any event, the United States is not a spendthrift nation as many would have us believe.

Investment

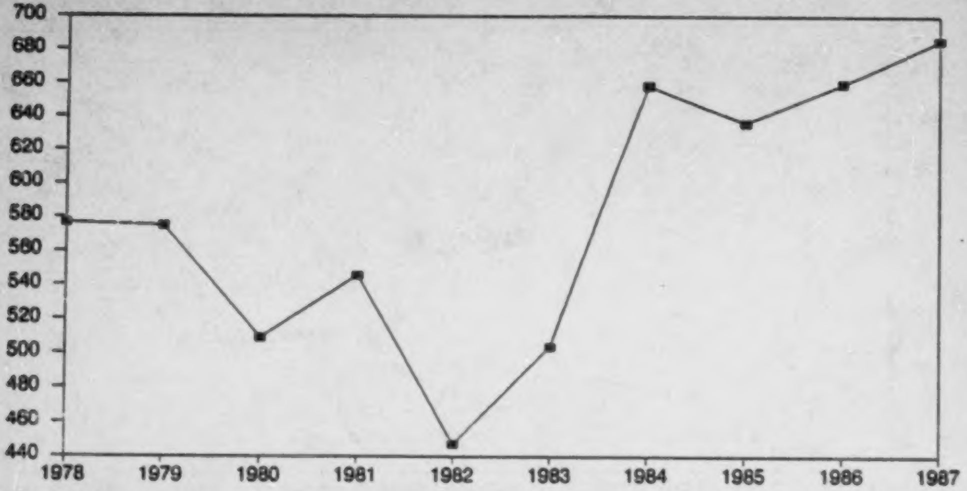
Investment is the long-term allocation of resources to the production and distribution of goods and services. Our ability to produce, today and in the future, is directly related to improving the way we work. Workers are more productive with better tools. Factories with state-of-the-art assembly lines have greater capacity and efficiency than older ones. And new buildings designed with flexible modular floor partitions can accommodate the changing technical demands of modern computer and communications networks. An economy cannot grow if it does not continuously improve the processes for producing goods and services.

The broadest measure of investment in the U.S. economy is gross private domestic investment. This figure is the total amount spent annually for new plant and equipment, business structures, residential investment, and inventory changes. Investment since the 1982 recession has been strong. The four years ending in 1982 witnessed poor investment growth. Plagued by stagnation, inflation, high interest rates, and unrealistic depreciation allowances, most incentives for investment vanished. Coupled with the effects of recession and low profitability, investment fell over 22 percent in real terms compared to the 1978 level. Fortunately, measures enacted in 1981 and taking effect in 1982, such as the Economic Recovery Tax Act, turned this disturbing trend around. Since then investment has accelerated. In 1983, real investment rebounded 12.7 percent, followed by an additional 30.6 percent in 1984. The 1987 figure represents a 53.7 percent increase from the 1982 low.

Chart II.8

REAL GROSS PRIVATE DOMESTIC INVESTMENT

Billions of Constant (1982) Dollars



SOURCE: Bureau of Economic Analysis

For 1987, total investment in current dollars was $716 billion. The figure for 1987 in 1982 dollars—$687.6 billion—stood $33.6 billion higher than 1986, a 5.1 percent increase.

Business formation and earnings

One of the remarkable features of the Reagan expansion is the growth in the number of businesses. Based on IRS information, the number of businesses—corporations, partnerships, and proprietorships—has grown from 13.9 million in 1981 to an estimated 16.8 million in 1985, a 21 percent increase. The Bureau of Economic Analysis reports that new incorporations grew 700,000 in 1986, and grew by a similar amount last year.

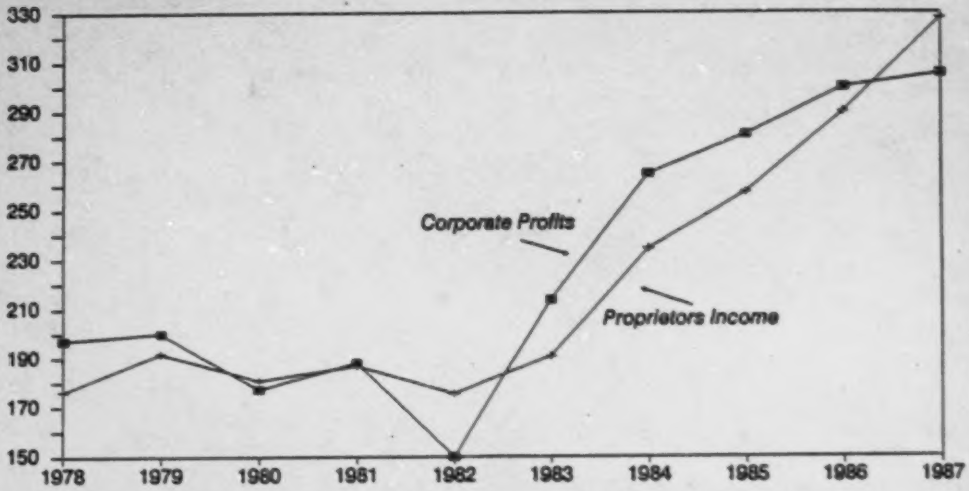
What has caused this explosion in business formation? No definitive answer exists, of course, but a number of factors certainly contributed to it. President Reagan has been an ardent supporter of free enterprise. America's entreprenaurial spirit is inspired by his leadership. Central to this success was the return to economic principles that encourage initiative and reward achievement. Tax and regulatory reform played key roles in improving the business climate in the United States. In short, incentive has been revived in our economic system.

Reflecting the continuing economic expansion, business earnings were strong and growing in 1987. Corporate pretax profits for 1987 compared to a year earlier were about $44 billion or 19 percent higher. Income from proprietorships has grown, too. The increase for 1987 is estimated to be $38 billion, representing an impressive 13 percent increase over 1986.

Chart II.9

BUSINESS EARNINGS

Billions of Dollars



SOURCE: Bureau of Economic Analysis

As illustrated by the chart, business earnings are affected by the business cycle. The two recession years, 1980 and 1982, show declines in both corporate profits and proprietors' income. The growth of corporate profits slowed slightly in 1985, due to capital consumption allowances, or in layman's terms, depreciation. The figures used for the chart include both inventory and depreciation adjustments, as reported by the Bureau of Economic Analysis.

In our free market system, profit is important not only as a signal for competitive opportunity, but also as a major source of saving. Retained corporate earnings contribute to the pool of funds available for investment. In 1987, $43.3 billion was undistributed. Even with this sizeable amount retained, $93.8 billion was paid out in dividends, the largest nominal amount (and perhaps real as well) ever.

The stock market

The stock market is often perceived as the nerve center of the capitalist economy. Shares traded are claims to the present value of the expected income stream generated by underlying corporate assets and the estimated market value of those assets. As changing economic and political factors affect the outlook for the economy, specific industries, and specific firms, stock prices react to the expected change in profits and alternative investment opportunities.

Because stock prices are affected by expected future profits, risk and uncertainty are important. Investors' expectations about a wide range of future events differ. Stock prices reflect the constantly changing evaluation of these events. Since the market looks to a future that is inherently uncertain and unknowable, the movement of stock prices has to involve an element of speculation. An intangible and subjective evaluation of future business income plays a central role in setting stock prices. The problem is that short-term speculation sometimes feeds on itself. Sooner or later speculative enthusiasm exceeds reasonable proportions and the bubble bursts, leading to sharp market corrections.

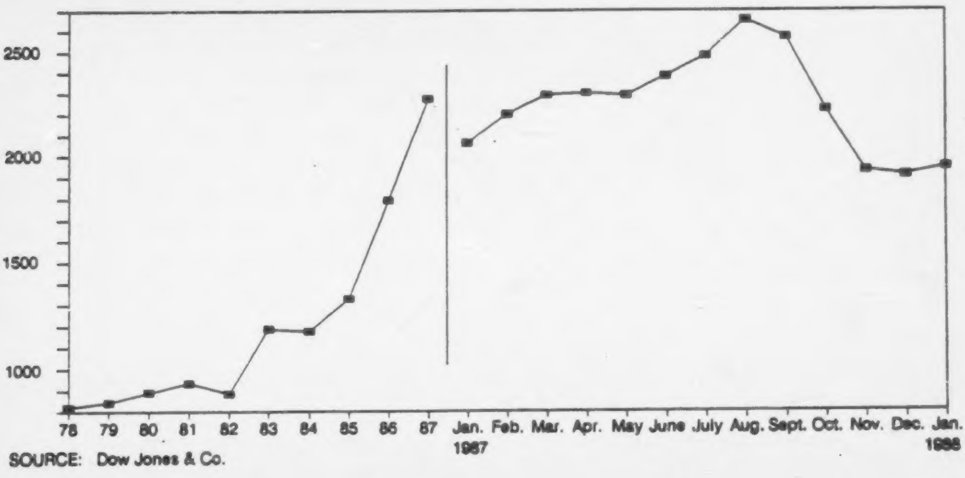
The bull market began in 1982. From a Dow Jones Industrial Average annual level of 884 in that year, the market climbed to a level of 1924 by December of 1986. The rise in the market reflected the economic expansion and gradual decline of interest rates, among other things. In 1987 the stock market roared to new highs, reaching a level of 2722 in August. In that month interest rates rose as fears of inflation clouded the bond market. Anxiety about the course and control of economic policy also may have contributed to unsettling the markets. The Dow declined in September and in the first half of October. On October 19 the Dow dropped 508 points, a record movement for one day. Chart II.10 displays Dow Jones averages for 1978–87.

Chart II.10

Dow-Jones Industrial Average

Yearly Average Levels, 1978 - 1987

Monthly Averages, January 1987 - January 1988



SOURCE: Dow Jones & Co.

The impact of the stock market plunge on the economy is unclear. On the one hand, there was definitely a sizeable reduction of wealth relative to the August high. If people feel poorer, they may not consume as much. This may lead to a drag on the economy. On the other hand, even after the crash, the Dow remains at the level reached in 1986, a level that was seen as positive for the economy. If the 1987 stock market run up was mostly speculation, and the decline was a return to realism, "Black Monday" may have little major impact on the nonfinancial economy. Nobel Laureate Milton Friedman argues that concern about Black Monday is overstated for this reason. Furthermore, he and others point out that capital gains in the bond market since October 1987 partially, or perhaps wholly, offset the decline in wealth due to the stock market plunge.

Productivity trends

A key determinant of U.S. economic competitiveness is productivity growth, output per hour. The post-World War II U.S. record has been impressive. From the fourth quarter of 1948 to the fourth quarter 1973, it averaged 2.8 percent. Between late 1973 through third quarter 1981, however, annual productivity growth dropped to 0.7 percent. Inflation, the maturation of the baby boom with greater numbers of new, less well-trained entrants into the work force, high interest rates that discouraged investment, higher energy costs, and a proliferation of government regulations have been identified as contributing to slower productivity growth over this eight-year period.

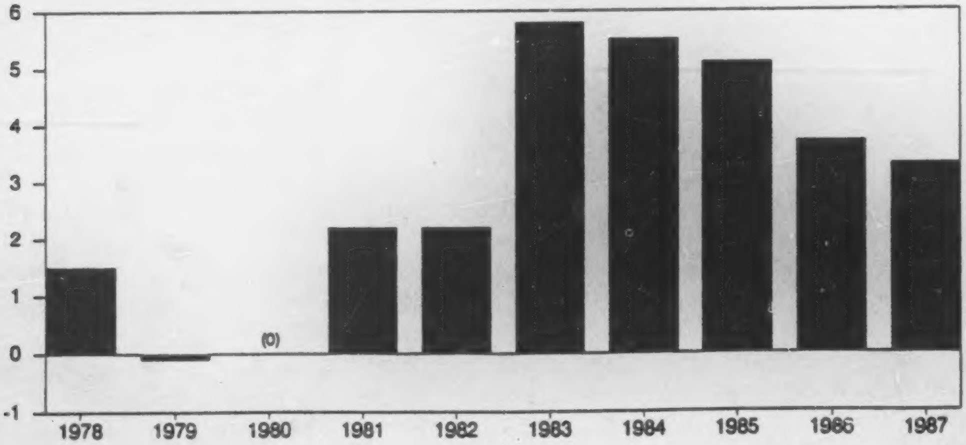
These trends are reflected in the chart for the years 1979–82. The result: rising wages and salaries, but without compensatory productivity gains. Since then there has been an encouraging upturn in U.S. productivity growth—notably in manufacturing. Growth in output per hour in manufacturing in 1987 is estimated to be 3.3 percent (average annual rate). This is a slight drop from the 3.8 percent average increase in manufacturing productivity that occurred between the third quarter of 1981 and 1986. Yet it is significantly higher than the 1.5 percent increase in this sector between 1973 and 1981; it also eclipses the 2.6 percent post-World War II average. Likewise, in contrast with the rest of the world, unit labor costs in the U.S. have been declining. Although the U.S. has lost its commanding productivity lead against other countries, the absolute level of U.S. productivity remains higher than our trade partners.

Average yearly productivity growth rates move in cyclical directions. Productivity decline typically occurs at the beginning of recessions, as output falls in response to drops in demand; alternatively, productivity growth is high during economic recoveries and initial phases of economic expansion.

Chart II.11

PRODUCTIVITY IN MANUFACTURING

Average Annual Percent Growth Rates



SOURCE: Bureau of Labor Statistics

Employment

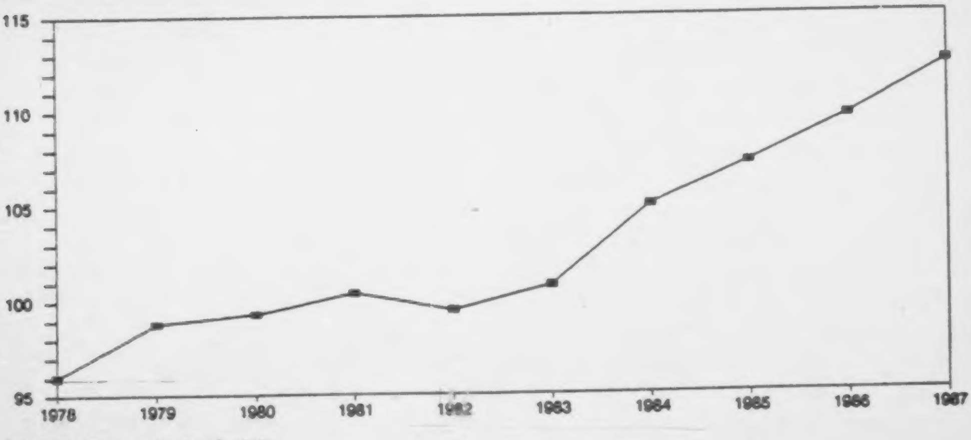
One of the important benefits of a long expansion is the steady growth of employment. As the current expansion, already the longest peacetime upswing, continues to generate jobs, employment opportunity is provided to more and more Americans. To date, this expansion has generated 15 million new jobs. Consequently, the civilian unemployment rate has dropped to 5.6 percent in March 1988, a level which has not been lower since 1974.

For the country as a whole, the most important measure of economic progress is not the stock market average on Wall Street, but new jobs provided on Main Street. Over the course of this recovery, the employment data have been consistently positive, even as many other economic indicators signaled trouble. The consistent strength of the employment data occasionally led some to question their accuracy. But throughout the expansion, the labor data have better reflected the course of the economy, and other indicators have had to be revised upward many times. Americans know job numbers are the bottom line. Manufacturing employment has not declined but has increased by almost one million jobs during the last four years.

Another measure of the economic progress achieved is the employment-population ratio. This important measure of the economy's ability to create jobs climbed to a level of 62.0 percent in March 1988.

Over the last year employment growth has continued, providing an additional three million jobs. During the first three months of 1988, the economy continued this strong growth, pushing civilian employment over 114 million.

Chart II.12
CIVILIAN EMPLOYMENT
Millions of Workers



SOURCE: Bureau of Labor Statistics

Economic outlook

The typical focus of an economic outlook is the change in real gross national product. GNP is the sum of four economic activities:

consumption, investment, government spending at all levels, and net exports. Table II.1 shows the annual changes in each of these economic activities since the beginning of the expansion in 1983.

TABLE II.1.—CHANGES IN REAL GNP AND ITS COMPONENTS, 1983–87

[In billions of constant (1982) dollars]

Activity	1987	1986	1985	1984	1983
Consumption	47.2	97.9	103.3	103.3	95.3
Investment	33.6	17.9	−22.3	154.4	56.7
Net exports	9.7	−37.6	−24.2	−64.1	−46.2
Government purchases	17.2	27.6	49.2	28.7	7.3
Total	107.7	105.8	106.1	22.3	113.1
Percent growth in real GNP	2.9	2.9	3.0	6.4	3.6

Source: Bureau of Economic Analysis.

Many observations can be drawn from the "anatomy of an expansion." First, only for 1985 can one say that economic growth was "government-led" with the growth in government purchases offsetting declines in investment and net exports. The contribution of government to GNP growth in 1987 was the lowest since the beginning of the expansion in 1983. Second, in 1987 net exports became a stimulant to economic growth. Third, investment during this expansion has been highly erratic, ranging from an increase of $154.4 billion in 1984 to a decline of $22.3 billion in 1985. Fourth, the growth in real personal consumption expenditures has been stable—until this past year. One needs also to note that $29.1 billion of the $33.6 billion increase in investment in 1987 was in the form of "change in business inventories"—goods produced but not yet sold. Clearly the best economic news in 1987 was the dramatic turnaround in net exports.

In its most simplistic form, the job of the forecaster is to estimate the change in these economic activities—and therefore GNP—for the upcoming year. Given the continuing real reductions in defense outlays, the growth in government purchases will be somewhat lower than that experienced in 1987 or 1986, probably in the range of $12 to $15 billion. We agree with the consensus Blue Chip Indicator forecast that net exports will continue to improve and show a year-over-year growth of from $25 to $30 billion. We anticipate moderate growth in investment as inventories are depleted, probably in the range of $6 to $8 billion.

The central question of course revolves around the magnitude of change in consumption for 1988—an activity representing two-thirds of GNP. Preliminary data from the Department of Commerce show that consumption expenditures declined by $24.1 billion (1982 dollars) during the fourth quarter of 1987. We believe much of this decline is traceable to the psychological aftershocks of the stock market crash and the tightening of the money supply and credit by the Federal Reserve during the first nine months of 1987. The lagged effect of tight money may result in lackluster consumption in the first quarter of this year. However, the composite index of leading indicators for February showed a healthy 0.9 percent increase. This strongly suggests that the economy will reflect moderately positive real growth during the first quarter of 1988—the quarter most economists believe will be the weakest this year.

The Administration's forecast of a 2.9 percent year-over-year real growth in GNP during 1988 is realistic and highly achievable. Should the increase in consumer spending during 1988 rebound to recent historical levels (about $100 billion), real growth in 1988 could easily exceed 3 percent. The final phase-in of the 1986 Tax Reform Act tax rates cuts certainly could provide an impetus for more consumer spending.

III. FISCAL TRENDS

The past three decades have witnessed considerable changes in the theory and practice of public finance. Fiscal orthodoxy, which stressed balanced budgets and frugality in government expenditure, was eclipsed by neo-Keynesian doctrine that instead suggested balancing the entire economy by international creation of Federal deficits and surpluses to smooth business cycles. By breaking the taboo against spending, the effect of this theory was to provide a rationale for politicians to accede to special interest demands for additional spending. Federal spending accelerated, and deficits have become the rule rather than the exception.

As this fiscal result became more serious, a new subdiscipline of economics emerged, known as public choice. This body of thought explains how the loss of the balanced budget rule undermined fiscal discipline in Congress. The lack of effective budget constraints has generated an untenable budget situation, prompting reform proposals designed by public choice theorists to restore fiscal responsibility.

Another important change in public finance deals with the structure and effects of the individual income tax. In the late 1970s, lower and middle income taxpayers found themselves paying higher tax rates as inflation adjustments in wages and salaries pushed them into higher tax brackets. Middle income taxpayers then faced marginal tax rates previously reserved for the wealthy. The steeply progressive tax structure, moreover, was largely an illusion as the rich channeled their wealth into tax sheltered investments, and otherwise avoided the high tax rates.

As a result, the Reagan Administration's call for the Roth-Kemp tax legislation was well received by taxpayers. All personal rates were cut 23 percent and the brackets indexed for inflation. The success of the 1981 law laid the foundation for bipartisan approval of further personal tax cuts in 1986. The result has been a revolution in tax policy, reducing personal tax rates to a fraction of their previous level. This may well be the greatest economic policy accomplishment of the Reagan Administration. Not only is the tax code dramatically restructured, but these changes have become the foundation for the longest peacetime expansion in U.S. history.

Taxing and Spending

Budget deficits are a relatively new occurrence on the American political scene. The traditional taboo against Federal spending in excess of tax revenues made budget deficits exceedingly rare except during war or depressions. As Nobel Laureate James Buchanan has pointed out, only under the influence of Keynesian doctrine did politicians begin to believe that deficit spending was excusable, and that the national debt was not a problem because "we owe it to ourselves." This view became dominant in the early 1960s with the rise of the "new economics." Though intended only to facilitate fiscal "fine tuning" and full employment, the unintended effect of this doctrine on political decisionmaking was disastrous. With congressional spending no longer constrained by the level of tax revenues, new programs were initiated and old ones expanded during the 1960s. Except for 1969, the Federal Government has run a deficit in every year since 1960, through recessions and expansions alike.

As James Buchanan and Richard Wagner have written:

> The pre-Keynesian or classical fiscal constitution was not written in any formal set of rules. It was, nonetheless, almost universally accepted. And its importance lay in its influence in constraining the profligacy of all persons, members of the public along with the politicians who acted for them. Because expenditures were expected to be financed from taxation, there was less temptation for dominant political coalitions to implement direct income transfers. Once the expenditure-taxation nexus was broken, however, the opportunities for such income transfers were increased.

This public choice perspective explains budget trends over the last two decades. Some of the policy implications are considered in the following section, but it is useful at this point to review the fiscal record. As will be seen, rapid growth in transfer payments fueled a surge in Federal outlays. The result is that Federal spending and deficits have soared to record highs in this decade. Even though 1987's deficit has declined to $150 billion—a 32 percent improvement from the previous year—it remains intolerably high.

Growth of Federal spending

Between 1960 and 1987, Federal outlays have risen from $92.2 billion to $1.005 trillion—a nominal increase of 990 percent and a real increase, measured in constant 1982 dollars, of 152 percent. This increase has outpaced the rate of growth in GNP, pushing the Federal outlay share of GNP from 18 percent in 1960 to nearly 23 percent in 1987.

During the same period, Federal receipts also grew from $92.5 billion in 1960 to $854 billion in 1987. That represents a nominal increase of 823 percent and a real increase of 114 percent. Receipts as a percent of GNP rose from 18.3 percent to 19.4 percent over this period. Clearly, revenues over this period expanded briskly enough to cover about $760 billion of additional spending. Unfortunately, Federal outlays increased $912 billion over this period. Table III.1 presents the growth in the Federal budget during this period.

The public choice view also predicts a change in the composition of the budget. This is indeed the case, as transfer outlays jumped from $24 billion in 1960 to $469 billion in 1987. This amounts to an astounding 1,854 percent increase in nominal dollars and a 440 percent increase after adjustment for inflation. Defense spending, in contrast, after adjustment for inflation, increased during this period but 30 percent. As a result, the share of total outlays devoted to defense shrank from 52 percent in 1960 to a little over 28 percent in 1987.

TABLE III.1.—GROWTH OF CONGRESSIONAL SPENDING—SELECTED YEARS, 1960–87

[Dollars in billions]

Year	Outlays	Percent GNP	Revenues	Percent GNP	Deficit	Percent GNP
1960	$92.2	18.2	$92.5	18.3	$0.0	0.1
1965	118.2	17.6	116.8	17.4	−1.4	0.2
1970	195.6	19.8	192.8	19.5	−2.8	0.3
1975	332.3	21.8	279.1	18.3	−53.2	3.5
1980	590.9	22.1	517.1	19.4	−73.8	2.8
1985	946.3	24.0	734.1	18.6	−212.3	5.4
1986	990.2	23.8	769.1	18.5	−221.1	5.3
1987	1,004.6	22.8	854.1	19.4	−150.4	3.4

Source: Office of Management and Budget.

According to the Congressional Budget Office, the long-term budget outlook will improve somewhat after fiscal 1989. Though the deficit is projected to increase from $157 billion in 1988 to $176 billion in 1989, it is expected to decline to a level of $134 billion by 1993. As CBO's forecast is based on very modest economic growth, it cannot be regarded as unduly optimistic, but may well be somewhat pessimistic with regard to revenues, particularly in fiscal 1988.

Under current law, Federal revenues will increase an average of $73 billion in each of the next five fiscal years (1989–1993). By 1993, $365 billion will be added to the level of baseline revenues. If Federal spending growth can be held to just half of the increase in revenues over the period, the deficit would be eliminated by 1993. The table below displays Federal budget trends through 1993.

TABLE III.2.—RISING TRENDS OF FEDERAL REVENUE AND SPENDING—FISCAL YEARS 1987–93

[In billions of dollars]

	1987	1988	1989	1990	1991	1992	1993
Revenues	$854	$897	$953	$1,036	$1,112	$1,181	$1,262
Outlays	1,005	1,055	1,129	1,203	1,270	1,332	1,396
Deficit	150	157	176	167	158	151	134

Source: CBO.

The magnitude of the revenue increase under current law is more than sufficient to reduce the deficit. Consequently, Congress should not increase taxes, but instead focus on capping the rate of Federal spending growth. As a study released by Senator Roth has demonstrated, tax increases tend not to reduce the deficit but rather to stimulate additional spending. Tax increases would thus not only hamper economic growth, but prove counterproductive in reducing the deficit as well.

Budget issues in the 1980s

One of the most often repeated myths of this decade is that the 1981 Reagan tax cuts caused the large structural budget deficits. According to this point of view, the 1981 tax cuts drained the Treasury, creating a long-term fiscal crisis. This view is contradicted by the facts. Federal revenues since 1980 have trended upward, and are now at a record level. In 1987 the Treasury collected more revenue than ever before in U.S. history.

Between 1980 and 1987 personal income tax payments rose from $244 billion to $392.6 billion, an increase of 61 percent. Overall, total receipts jumped 65 percent over the 1980–87 period. To suggest that this increase in receipts caused budget deficits is absurd. The problem is that Federal outlay growth outpaced the significant revenue increase over this time. Table III.3 below displays personal income tax revenues for fiscal years 1980–87.

TABLE III.3.—INDIVIDUAL INCOME TAX RVENUES—FISCAL YEARS 1980–87

[in billions of dollars]—

Year	Revenue	Change from previous year
1980	244.1	26.2
1981	285.9	41.8
1982	297.7	11.8
1983	288.9	−8.8
1984	298.4	9.5
1985	334.5	36.1
1986	348.9	14.4
1987	392.6	43.7

Source: OMB.

As shown in Table III.1, total revenues climbed from $517 billion in 1980 to $854 in 1987, a rise of $337 billion. Over the same years Federal outlays jumped from $591 billion to $1005 billion, an increase of $414 billion. Federal revenues have gone up every year except 1983, when they were depressed $17 billion by recession. Yet even in that year they were $83 billion above their 1980 level.

Higher receipts cannot cause budget deficits. In the 1980–87 period, receipts rose 65 percent, while outlays increased 70 percent. The inability of Congress to hold the amount of expenditure growth to that of receipts has resulted in large deficits. Though tax payments might have gone up even faster without the 1981 tax bill—because of "bracket creep," not stimulated economic growth—taxpayers' tolerance of high tax burdens would not have continued indefinitely.

Federal deficits and debt in perspective

Federal deficits distort economic decisionmaking and pose a long-term threat to the American standard of living. This is reason enough to favor elimination of Federal deficits and capping of the national debt. While a gravely serious problem, the current fiscal position of the Untied States is not hopeless, and since 1986 actually has improved.

As a percent of GNP, the total U.S. deficit share (from all units of government) is projected to decline from 2.4 percent in 1987 to

2.3 percent in 1989. The West German deficit, in contrast, is expected to expand from 1.7 percent of GNP in 1987 to 2.7 percent in 1989. The French deficit will go from 2.8 percent of GNP in 1987 to 2.5 percent in 1989.

Most discussion of the deficit focuses on that of the national or central government. Table III.4 below shows the deficit share of GNP for major nations. Whereas the Japanese overall deficit share of GNP will remain at about 1 percent, the Japanese central government's GNP share will average about 3.5 percent through 1989. The U.S. fiscal position, while unfortunate, is clearly not out of line with that of other major nations.

TABLE III.4.—CENTRAL GOVERNMENT FINANCIAL BALANCES [1]

[Deficit (–) as a percentage of nominal GNP/GDP]

	1982	1983	1984	1985	1986	1987 [2]	1988 [2]	1989 [2]
Country:								
United States	–4.6	–5.2	–4.5	–4.9	–4.8	–3.4	–3.3	–3.1
Japan [3]	–5.2	–4.9	–4.0	–3.7	–3.6	–3.5	–3.5	–3.5
Germany	–2.1	–1.6	–1.3	–0.9	–1.0	–1.3	–1.7	—
France	–2.7	–3.2	–3.3	–3.3	–2.8	–2.4	–2.2	—
United Kingdom	–2.8	–2.8	–3.1	– 2.4	–2.3	–2.1	–1.8	–1.9
Italy	–10.3	–11.0	–10.8	–12.3	–11.1	–10.2	–9.9	–9.7
Canada	–5.5	–6.2	–6.8	–6.7	–4.9	–4.2	–3.3	–3.8
Total	–4.5	–4.8	–4.4	–4.5	–4.2	–3.4	–3.3	—

[1] On a Standard National Account basis except for the United States and the United Kingdom where the data are based on national methods, and in France where they are on an administrative basis.
[2] OECD estimates and projections.
[3] For the fiscal year beginning April 1 of the year shown.
[4] 1982 GNP/GDP weights and exchange rates.

Source: Organization for Economic Cooperation and Development.

Similarly, while the ~~Federal~~ debt is excessive, as a percent of national output it has been far larger in the past. Relative to other nations, the 1986 debt share of GNP was 56 percent for the United States, compared to 91 percent for Japan and 58 percent for the United Kingdom. Often the issue of government debt is linked with concerns about other types of debt. Table III.5 shows the GNP shares of various kinds of debt. The U.S. situation, while serious, is still not extreme by international standards.

TABLE III.5.—DOMESTIC NONFINANCIAL SECTORS' GROSS DEBT/GNP RATIOS

[In percent]

Country and year	Public	Corporate sector	Personal sector	Total
United States:				
1975	42	37	50	129
1985	52	42	61	155
1986	56	45	65	166
Japan:				
1975	39	94	33	176
1985	90	102	46	238
1986	91	102	47	240
Germany:				
1975	25	63	42	130
1985	41	72	56	149
1986	41	71	55	167

TABLE III.5.—DOMESTIC NONFINANCIAL SECTORS' GROSS DEBT/GNP RATIOS—Continued

[In percent]

Country and year	Public	Corporate sector	Personal sector	Total
United Kingdom:				
1975	63	46	33	142
1985	60	46	51	157
1986 [1]	58	48	55	161
Canada:				
1975	53	65	52	170
1985	83	64	50	197
1986	84	64	54	202

[1] Third quarter.

Note.—Nation balance-sheet data. For Canada, public sector consolidated debt figures are estimated.

Source: Bank for International Settlements.

Continuing the improvement of the U.S. fiscal situation will require serious congressional efforts to cap spending growth. Though the fiscal position of the United States is not enviable, it is fair to notice that many foreign critics of U.S. policy often reside in nations with similar if not more serious problems. Moreover, critics in such nations usually enjoy the benefit of U.S. defense spending, which their own governments are unwilling to provide. Instead, the bulk of their government spending is dominated by transfer payments, social programs, and subsidies.

Public choice and the propensity of legislatures to overspend

Public choice theory uses economic concepts to analyze democratic decisionmaking in legislative bodies. Its prominence was recognized by the award of the Nobel Prize in economics to James Buchanan in 1986. The public choice approach emphasizes a scrutiny of the institutional rules and practices that govern how legislative committees and full legislatures make policy. At present, rules regarding the Federal budget are clearly not a powerful constraint against excessive congressional spending.

In the consideration of a specific item of government spending, only its benefits are usually fully considered. These benefits are normally visible and concentrated among distinct special interest constituencies, whereas their costs are diffused among all taxpayers, and considered only later if at all. A $10 million program costs each taxpayer but 10 cents. Thus, the task of special interest advocates is to directly or indirectly link the votes in favor of such special interest programs together to form a coalition package large enough to ensure majority support. In this way programs are funded that probably could not prevail if considered alone on their own merits. At the margin, the result is that resources drawn out of the economy to finance additional government spending contribute fewer benefits to society than the costs they impose.

Following the precedent of the British parliamentary system, which granted the power of the purse to the legislature to prevent overtaxing by the Crown, the framers of the U.S. Constitution gave this power to Congress. Not a dime can be spent by the Federal Government without appropriation by Congress. The only independent power given the President is the veto, and this requires complete rejection of entire appropriation bills, the necessary with the unnecessary measures. By packaging separate appropriations bills into one huge measure, Congress can lessen the veto power. Recently, support is growing for a court test of Article I, Section 7, of the Constitution, which may empower the President to veto any item of omnibus legislation that was subject to a separate vote during the legislative process. We strongly urge President Reagan to see if a line-item veto of this nature would be held constitutional.

Powerful Members of Congress can satisfy their constituencies not only by routinely planting uneconomic subsidies in spending measures, but by burying even the most outlandish expenditures within these measures as well, often in secret. This practice merely encourages logrolling and makes spending restraint more difficult. Regardless of their vote on the recent fiscal 1988 continuing resolution, almost three months after the start of the fiscal year most Members of Congress would not have supported many of the individual items included in the 1,194 page Continuing Resolution if considered individually. For example, items such as a $25 million appropriation for a private industrial airport, $8 million for religious schools in France (the retraction of which has been requested by its sponsor and approved by Congress), a $10 million tax subsidy for railroad workers, $9.5 million for an "Intermodal Urban Demonstration Project," $60,000 for a Belgian endive research center in Massachusetts, and other expenditures on cranberries, crawfish, and the list goes on, probably would not pass Congress on an individual up or down vote.

The need for institutional reform

Obviously, the so-called budget process offers little budgeting and less process. Existing rules under which budget decisions are made do nothing to contain congressional spending habits. While institutional reform does not offer a magical solution to lack of fiscal discipline, it does at least offer the prospect of more discipline in Federal spending.

For these reasons Congress should enact the balanced budget/tax limitation constitutional amendment, and line-item veto. Opponents argue these measures would either be ineffective and thus meaningless, or would actually work and thereby undermine the economy. Despite the fact these two arguments contradict one another, both reforms are heatedly opposed by virtually all special interest groups. This united opposition by spending advocates would seem to indicate that constitutional reforms could indeed work and would restrain increased spending. It is obvious to all that the current budget system is not working, and that this situation serves those who lobby for additional Federal funds and against measures offering the potential of curbing the growth of Federal spending.

Distribution of income tax burden

Ever since the Roth-Kemp tax bill was first advanced, opponents have alleged it would lead to a "giveaway to the rich." Supporters of Roth-Kemp pointed out that in many respects the apparent progressivity of the tax code was as illusion, and that a reduction of unrealistically high tax rates, while important mainly for other reasons, would also reduce incentives to shelter income and otherwise avoid taxation. As a result income earning potential then outside the taxable economy could be drawn into taxable activities. This could well lead to the rich assuming a larger share of the tax burden, according to this view. This result is shown in Tables III.6 and III.7.

After the enactment of the 1981 tax legislation, the critics of Roth-Kemp periodically renewed their attacks, principally on the basis of the bill's alleged regressivity. These attacks have been based on the ideological desire for a steeply progressive tax rate structure in law, and generally without the benefit of facts as provided in actual income tax data. It is ironic that IRS tax collection data have played such a small role in discussion of this issue.

There are different views of the function of the tax system and the role of progressivity. According to one side of the argument, the tax code, in raising revenue, should additionally be used to alter the after-tax distribution of income. In other words, the tax code should be an instrument of social policy to redistribute income in a way deemed desirable by politicians and bureaucrats in Washington. Another view sees the tax system principally as a device to raise revenue to finance needed public goods with a minimum of interference with the private sector.

Attempts to manipulate income shares using the tool of tax policy mainly serves to drive the rich into tax shelters. As a result, middle and lower income taxpayers are forced to assume more of the tax burden. In other words, while some may feel good about "soaking the rich" with a high statutory tax rate, this rate will not in reality be paid; thus more of the revenue burden will consequently fall on others. By reducing excessively high tax rates, which are merely totems of equalitarian ideology, the tax burden will be shifted in a way that is progressive. A results-oriented, pragmatic look at the facts makes the merit of this view compelling.

TABLE III.6.—TAX PAYMENTS BY PERCENTILE, 1981–86

[In billions of constant (1986) dollars]

Year	Wealthy top 1 percentile	Upper income top 5 percentile	Middle income 50–95 percentile	Lower income bottom 50 percentile
1981	61.4	118.9	196.2	25.4
1982	60.8	113.0	177.5	23.1
1983	59.5	111.2	166.2	21.5
1984	66.1	121.2	169.4	23.1
1985	71.9	131.0	173.4	23.5
1986 [1]	96.7	164.3	182.7	23.9
1981–86 percent change	+57.5	+38.2	−6.9	−5.9

[1] Preliminary.

Source: Internal Revenue Service.

The upward shift in the tax burden

Table III.6 shows that the top one percent of taxpayers—here denoted as the wealthy, with 1986 adjusted gross incomes (AGI) over $120,262—saw their tax payments jump from $61.4 billion in 1981 to $96.7 billion in 1986, measured in constant 1986 dollars to eliminate distortion from inflation. This amounts to an increase of 57 percent. If a more inclusive measure of upper income is preferred by selecting the top five percent of taxpayers (the affluent, with AGI over $62,480), tax payments rose from $118.9 billion in 1981 to $164.3 billion in 1986, an increase of 38 percent.

What of the middle and lower income groups? Those taxpayers earning between roughly $17,300 and $62,400 of 1986 income (the middle class, comprised of the 51 to 95 percentile) paid $196.2 billion in 1981 but only $182.7 billion in 1986, a decline of 7 percent. The lowest 50 percent of tax filers saw their tax payments decline by 6 percent over the same period. This decline in tax payments, reflected in lower tax rates and tax burden for this group, accompanied a 10.5 percent increase in real AGI. Tax payments for all income groups rose between 1983 and 1986, due to rising incomes and economic growth. However, the burden of taxation shifted to upper incomes during this period.

Another way to demonstrate increased progressivity is to examine the change in the percent of the total tax burden paid by each group over time. Between 1981 and 1986 the share of the tax burden shouldered by the wealthy increased from 18 percent to 26 percent. The share of the tax burden paid by the affluent rose from 35 percent to 44 percent, while that of the middle class declined from 58 percent to 49 percent. The tax burden paid by lower income Americans dropped from 7.5 percent to 6.4 percent over the same period. Table III.7 presents annual data on tax burden shares between 1981 and 1986.

TABLE III.7.—SHARE OF TAX BURDEN BY PERCENTILE, 1981–86

[Percent of total]

Year	Wealthy top 1 percentile	Upper income top 5 percentile	Middle income 50–95 percentile	Lower income bottom 50 percentile
1981	18.1	34.9	57.6	7.5
1982	19.4	36.0	56.6	7.3
1983	19.9	37.2	55.6	7.2
1984	21.1	38.6	54.0	7.3
1985	21.9	39.9	52.9	7.2
1986	26.1	44.3	49.3	6.4
1981–86 percent change	+44.2	+26.9	−14.4	−14.9

Source: IRS.

The 1981 tax bill cut tax rates 23 percent across the board, and indexed tax brackets starting in 1985. How were the effective tax rates paid by each percentile grouping affected over this period? Table III.8 below displays the effective average tax rates over this time.

Finally, how did the change in average tax rates vary among the groups? The decline in average tax rates was greater for the middle class and lower class than for the upper income groups. The average tax rate falls for the highest income group despite much higher tax payments because the lower marginal tax rates increased incentives to realize more taxable income—by reducing the tax penalties for additional entrepreneurial and work effort as well as for capital gains.

The IRS data demonstrate that upper income groups are now paying more taxes, and have assumed a much larger share of the income tax burden. The impact of the 1981 tax bill on the income tax system has clearly been progressive.

TABLE III.8.—AVERAGE EFFECTIVE TAX RATES BY PERCENTILE

Year	Wealthy top 1 percentile	Upper income top 5 percentile	Middle income 50–95 percentile	Lower income bottom 50 percentile
1981	34.2	26.5	14.8	6.6
1982	32.1	25.0	13.7	6.1
1983	29.8	23.5	12.6	5.7
1984	29.8	23.7	12.3	5.8
1985	29.7	24.1	12.1	5.7
1986	31.1	26.1	12.1	5.6
1981–86 percent change	−9.1	−1.5	−18.2	−15.1

Source: IRS.

IV. ECONOMIC GROWTH AND THE RISING STANDARD OF LIVING

Growth without inflation has been the goal of Reagan Administration economic policy from the start. Growth is not an end in itself, but is necessary to provide more opportunity and a higher standard of living for all Americans. The Administration wisely focused on enlarging the size of the economic pie rather than becoming enmeshed in the distributional politics of dividing the spoils of a shrinking or "zero-sum" society.

Unfortunately, for years stagflation caused many policymakers to resign to that defeatist view. The shrinking economy was evident in a decrease in real family incomes. In 1980 alone, real median family income fell $1,614—the largest drop on record. Reagan Administration policy was designed to reverse this foreboding trend and to restore economic growth by reducing the fiscal and regulatory barriers to work, save, and invest. Once in place, this strategy worked remarkably well.

The current expansion, the longest peacetime upswing in U.S. history, has created 15 million new jobs while the unemployment rate has fallen to its lowest level since 1979. The employment-population ratio, an important measure of the economy's ability to create enough jobs, has climbed to 62.1 percent, a record level. Real median family income has rebounded from the stagflation era trend, jumping 10.7 percent since 1982. The following discussion outlines the favorable income and distribution trends of the Reagan years.

Real median family income

Over the years a number of political and news media reports have contended that real median family income has trended downward under the Reagan Administration. Most of these reports do not present a full disclosure of time-series data, so it is impossible to know what changes in income are being described. For example, if income data from one year in the late 1970s are compared with one year from the early 1980s, it is possible to allege that a massive decline in family income was caused by some misanthropic Reagan Administration policy. This "selective" method is as inaccurate as it is misleading.

Faced with facts, critics either have been silenced or forced to invent new arguments to support their contention that income growth has suffered. Such efforts are contradicted by five consecutive years of family income gains, amounting to a 10.7 percent increase over the course of the expansion. The combination of strong economic growth and low inflation has restored solid income growth. Figures for 1987 not yet available should show continued sizeable improvements.

TABLE IV.1.—TURNAROUND OF FAMILY INCOMES 1979–86

[In constant (1986) dollars]

Year	Real median family income	Annual change
1979	29,588	−59
1980	27,974	−1,614
1981	26,991	−983
1982	26,618	−373
1983	27,155	537
1984	27,903	748
1985	28,269	366
1986	29,458	1,189

Source: Census Bureau.

Are the rich getting richer and the poor poorer?

Some critics of this expansion seek to use income distribution data to suggest the rich are getting richer and the poor poorer under President Reagan. The table below demonstrates this argument is not valid. Measured in constant 1986 dollars, the percentage of families earning under $20,000 annually declined from 33.4 percent in 1980 to 31.8 percent in 1986. All the articles written about "the decline of the middle class" may have a kernel of truth, as the proportion of families earning between $20,000 and $50,000 did fall from 50.6 percent to 47.5 percent over the same period. The reason is not "downward mobility," but quite the opposite. The percentage of American families earning over $50,000 annually has risen sharply since 1980. This group has expanded dramatically from 15.9 percent of all families in 1980 to 20.7 percent in 1986.

TABLE IV.2.—DISTRIBUTION OF FAMILIES BY INCOME—SELECTED YEARS 1970–86

[Percent of total]

Year	Low income under $20,000	Medium income $20,000–$50,000	High income over $50,000
1970	31.8	54.3	13.9
1975	32.6	52.7	14.8
1980	33.4	50.6	15.9
1981	35.0	49.5	15.4
1982	35.6	48.7	15.5
1983	35.3	48.2	16.4
1984	34.1	48.0	18.0

TABLE IV.2.—DISTRIBUTION OF FAMILIES BY INCOME—SELECTED YEARS 1970–86—Continued

[Percent of total]

Year	Low income under $20,000	Medium income $20,000–$50,000	High income over $50,000
1985	33.4	47.6	18.9
1986	31.8	47.5	20.7

Note.—Columns denote constant (1986) dollars. Rows may not add to 100 because of rounding.

Source: Census Bureau.

Upward mobility has been shared by black families. As the following table shows, the share of blacks earning over $50,000 jumped from 6.0 percent in 1980 to 8.8 percent in 1986. In contrast, the share of blacks earning under $20,000 fell from 57.5 percent in 1980 to 54.7 percent in 1986.

TABLE IV.3.—DISTRIBUTION OF BLACK FAMILIES BY REAL INCOME—SELECTED YEARS 1970–86

[Percent of total]

Year	Low income under $20,000	Middle income $20,000–$50,000	High income over $50,000
1970	56.7	38.6	4.7
1975	55.2	39.4	5.3
1980	57.5	36.4	6.0
1981	59.2	35.7	5.1
1982	60.1	35.4	4.5
1983	59.2	34.4	6.2
1984	59.2	33.7	7.0
1985	57.5	34.9	7.5
1986	54.7	36.7	8.8

Note.—Columns denote constant (1986) dollars. Rows may not add to 100 because of rounding.

Source: Census Bureau.

The bottom line is that the average American is better off now than during the stagflation of the Carter years. The best measure of income in the opinion of most analysts, real per capita personal income, showed a 12 percent gain since 1980. Some partisans are mystified because middle class Americans are so complacent about the supposedly shocking deterioration in their standard of living. The data suggest why this is so: Most people know their standard of living has increased, not declined. The alleged decline of income and living standards is a myth that is not even supported by everyday experience.

Real per capita disposable personal income (RPCDPI)

As independent measures of income, the comparison of real per capita disposable personal income (RPCDPI) and family income is an interesting exercise. Measures of per capita income are less affected by changes in family structure and social arrangements than are those of real median family income. Real median family income gains would tend to be lower over the last decade as the higher divorce rate and the trend towards more female headed households reflect the absence of one potentially employed parent. RPCDPI also is an after-tax per capita measure. The point is that these two measures are quite different, lessening the probability that any distorting factors would be shared and significantly affect the results. Of course, as a median measure, the family income statistic also differs from RPCDPI, which is an arithmetic mean.

RPCDPI has risen by 13 percent relative to its level in both 1980 and 1982. While declining by one percent in 1980, this measure of income shows a less serious problem than does real median family income in that year. This is partially due to the inflation adjustment, and perhaps also to the social changes alluded to above. In addition, the next table shows how these income gains have been reflected in increased real consumption—another measure of higher living standards.

TABLE IV.4.—REAL PER CAPITA DISPOSABLE INCOME AND CONSUMPTION, 1979–87

[In constant (1982) dollars]

	Income	Personal consumption expenditures
Year:		
1979	$9,829	$8,904
1980	9,722	8,783
1981	9,769	8,794
1982	9,724	8,818
1983	9,930	9,139
1984	10,419	9,489
1985	10,622	9,830
1986	10,947	10,142
1987	10,976	10,234

Source: Census Bureau.

The bad jobs myth

Critics of the Administration have been stymied by reports of robust employment growth, falling unemployment rate, and higher standard of living. With standard data from the Bureau of Labor Statistics and Department of Commerce dominated by upward trends, there has been an increasing tendency to resort to questionable manipulation of existing data by those critics. For example, analyses purporting to show that nine million manufacturing job have been lost since 1979, that wealth concentration has dramatically increased, or that all or most of the new jobs being created paid under $7,000 a year are inaccurate and misleading.

Most of the new jobs created during this expansion have been in occupations that pay relatively well. These include finance and business services; managerial and professional; precision production; craft and repair; and technical. Despite the wide circulation of the thesis that most of the jobs created during this expansion pay under $7,000 annually, it is completely false. Actually, only 8 percent of the jobs generated by this expansion pay under $7,000 annually, and only 4 percent of the total full-time workforce earn less than this amount today. Table IV.5 shows that the trend since 1982 is in the opposite direction than that asserted by the "bad jobs" thesis.

TABLE IV.5.—DISTRIBUTION OF EMPLOYMENT BY EARNINGS, 1973–85

[Percent of total]

	Low [1]	Middle [2]	High [3]
Year:			
1973	31.8	51.6	16.1
1974	32.0	52.6	15.4
1975	32.2	52.6	15.1
1976	31.7	52.8	15.5
1977	32.2	51.6	16.2
1978	31.2	52.0	16.9
1979	30.6	53.0	16.3
1980	31.9	54.1	14.0
1981	33.0	53.0	14.0
1982	33.0	54.0	13.0
1983	32.1	53.3	14.6
1984	32.4	52.6	14.9
1985	31.4	52.6	15.9

[1] Below one-half median income.
[2] One-half to twice median income.
[3] Above twice median income.

Source: Bureau of Labor Statistics Data.

Economic policy must be judged by its results. This expansion has created 15 million new jobs and reversed the decline in real family income that began under the Carter Administration. With the basis for economic growth restored, 1988 should see continued job creation and further increases in all measures of income.

V. EXPORTS—THE NEXT GROWTH SECTOR

This year will usher in significant shifts in the pattern of U.S. export/import flows. The key reason behind this large turnaround is the cheaper dollar, which has reduced the foreign price of most American exports while making imports that much more expensive. According to the International Monetary Fund (IMF), U.S. export volumes are expected to grow by an impressive 14.6 percent this year, while import volume growth will be a modest 1.2 percent. These changes have been evident since early 1986. Between then and the end of 1987, America's export volume jumped by 18.6 percent while import volume rose by 11.5 percent. In constant 1982 dollars, U.S. exports of merchandise goods moved from $214 billion in 1982 to $245 billion in 1986. Using the same methodology, recent Commerce Department estimates put 1987's merchandise exports at $290 billion. As a result, there is a strong possibility that 1988 will witness a $40 billion improvement in the "real" trade balance, which measures volume by factoring out inflation.

Particularly encouraging is the broadly based nature of America's export offensive, running the gamut from agricultural to high-technology goods. The Department of Agriculture estimates that exports of fiber, livestock, food, and vegetables in the fiscal year ending last September will total 141 million metric tons worth $32 billion, versus 129 million metric tons worth $27.9 billion in 1986. The result: America's year-over-year, 1986–87, agricultural trade surplus of $11.5 billion will more than double the previous year's. Meanwhile, a rising backlog of capital goods orders ensures healthy export growth in this sector. Reflecting their price sensitivity, real exports of consumer goods are also projected to show double-digit increases over the next several years. One of the best pieces of recent U.S. trade news involves the chemical sector, which has significantly recovered its competitive position after encountering a difficult period in the early 1980s. The industry registered an impressive turnaround in 1986 when its exports reached $22.8 billion, while imports were $15 billion, for a trade surplus of $7.8 billion. The Chemical Manufacturers Association estimates that the 1987 chemical trade surplus will reach $10.3 billion.

Likewise, import growth, on a volume basis, is also beginning to slow. For manufactured goods—which make up approximately two-thirds of total U.S. trade volume—imports have trended downward through September 1987, increasing by 8 percent, versus a comparable rise of 14.2 percent during the first three quarters of 1986. Merchandise import volumes as a whole are also slowing—rising by 2.9 percent from third quarter 1986 to third quarter 1987, versus an 18.4 percent increase in the preceding four quarters.

Given the magnitude of the present U.S. merchandise trade imbalance, these volume shifts are only just beginning to be reflected in dollar terms. The consensus of both public and private sector analysts is that a return of the United States to near-balance in its overall current account (which measures trade in both goods and services) will not occur until the early-to-middle 1990s. But over the next year or so, those shifts in trade-flow volume will begin to play a major role in helping bring about major reductions in the imbalance in current dollars, as price adjustments to the lower dollar are completed.

Regarding trade and growth, U.S. trade strategy should accordingly be directed toward the long haul. Dominant emphasis should be placed on ensuring the continued growth of American exports through an expanding global economy. To achieve this goal, the United States must continue to push for open world markets and global expansion. Before tackling these subjects, a few words on present discrepancies in estimating U.S. trade flows are in order.

Data gaps

For understandable reasons, U.S. trade policy has been dominated by concern over the merchandise account. Monthly trade figures have taken on considerable importance. So too have the increasingly sober conclusions derived from them. As the United States begins to adjust its external accounts, however, there is an equally compelling need to place those figures in appropriate perspective—for two reasons.

First, the figures themselves may overstate the magnitude of the present external U.S. imbalance, through at least "random" undercounting of American exports. A case in point is supplied by Canada, where the Commerce Department finally acknowledged in mid-1987 that U.S. merchandise exports had been substantially understated over the previous several years because truckers had not filed appropriate export documents. Because most of the bilateral trade between these two countries is carried in trucks, this oversight matters. For 1986 alone, the correction involved a $10.7 billion upward adjustment in U.S. export sales to Canada.

Is the Canadian case but an isolated example, without any long-term significance for deriving truly accurate estimates of U.S. trade flows? Mack Ott, senior economist at the Federal Reserve Bank of St. Louis, does not think so. After examining IMF data on U.S. exports to the other Group of Seven (G–7) countries—namely Canada, France, West Germany, Italy, Japan, and the United Kingdom—Ott concluded that U.S. exports to these markets, which account for about two-thirds of our reported merchandise trade deficit, have also been understated throughout the 1980s. "The correction," he says, "of U.S./G–7 exports has averaged nearly $12.5 billion a year since 1981, or about 12.9 percent of U.S./G–7 exports. The resulting overstatement of the U.S./G–7 trade deficit has been substantially higher: 27.6 percent during 1981–86 and 13.6 percent during the current year [1987]."

The second reason involves possible distortions regarding calculations of U.S. trade in services and intangible goods, which make up an increasingly significant component of the U.S. balance of payments. At the very least, a number of organizations, including the IMF and the Office of U.S. Trade Representative believe that the internationalization of services, as well as the growth of service industries throughout the world, requires considerably more precise data than are presently available. Unlike merchandise goods, most services (consider banking and insurance) are "invisible" and intangible and are not accordingly accompanied by customs documents when crossing international borders. As a result, companies typically fail to maintain records on the value of services embodied in goods and the revenues derived from them.

As the world's leading service economy, there is a strong possibility that notwithstanding discovery of additional service imports flowing into the United States, more reliable data on invisibles will more likely show the United States is seriously understating the size of its own services exports, and thus exaggerating its balance of payments deficit. The United States has succeeded in getting service trade included in the new round sponsored by the General Agreement on Tariffs and Trade (GATT). A key item for the Geneva negotiations is progress on developing a more accurate system for measuring service trade flows.

Although the persistence and magnitude of America's external balance is a cause for concern, the strenght of the real domestic economy hardly justifies a crash effort to reduce imports by applying drastic measures to reduce domestic consumption. The result would surely be a recession in the world's keytone economy. The preferred course of action is to allow market forces to bring about adjustments in the overall consumption-savings balance between the United States, on the one side, and its surplus European and Asian partners, on the other. Because these trading surpluses have been generated over a number of years, they will not disappear tomorrow. Now that U.S. firms are beginning to reap significant foreign market advantages as a result of a cheaper dollar, this would be the worst possible moment to lose patience with the adjustment process. In 1988 expanded exports will contribute one percent to America's GNP growth. This consideration alone should make export promotion the key trade policy goal of the United States for the foreseeable future.

Open markets

Dollar devaluation is not enough. The United States also needs the assistance of its trade partners if it is to succeed in expanding exports. Their failure to exercise appropriate responsibility in helping the United States facilitate this shift could inadvertently harm them. U.S. Trade Representative Clayton Yeutter, on a recent trip to Australia, put the matter succinctly:

> What our trading partners must understand is that protectionist pressures in America did not develop in a vaccum. Other nations have contributed to these pressures by refusing to open their markets, by failing to make timely and appropriate changes in economic policy, and by continuing or even increasing export subsidies and other trade-distorting practices. We have a $170 billion trade deficit [for 1987], and as long as there are major trading partners who seem indifferent to this situation, there will be protectionist sentiment in the United States. We have our own responsibility in this area too, of course, but not all the global responsibility lies in Washington, D.C.

The most important contribution to be made by our allies in their willingness to absorb an increasing share of global exports, particulary those from the United States. In substantial measure, this is already occurring. Consider U.S.-European Community trade. Dollar depreciation began to translate into a significant jump in EC imports of U.S. goods in late 1986 and has continued apace. As a result, 1987 U.S. exports to the European Community were up 14 percent, to $60.6 billion from $53.2 billion for 1986. Based on a comparison of export-import data for the whole year, the bilateral U.S. trade imbalance with the European Community declined 6 percent. Comparable actions on the part of South Korea, Taiwan, and Japan are no less necessary—and they have been slow in coming.

Meanwhile, U.S. efforts to pry open closed foreign markets must continue because onerous, if subtle, foreign market barriers frequently discriminate against U.S. exports. Those barriers must be dismantled because they distort the operation of free markets, and in so doing prevent nations from undertaking long-overdue domestic reforms, encouraging reliance on exports for growth, not internally generated demand.

As the world's largest and most open market, the United States has played a crucial role in promoting these foreign growth strategies. As Republican Members pointed out in last year's Joint Economic Report: "Over the past five years, most of our partners have relied on export sales to the United States for between one-quarter and one-half of their domestic growth. The result was that between 1981 and 1986, U.S merchandise imports jumped from $273 billon to $387 billion." American demand for imports up through the mid-1980s helped pull the global economy out of recession—and was accordingly necessary. But the United States can no longer be expected to shoulder the major burden for ensuring future global recovery. That task must now fall on other shoulders.

Faced with huge trade imbalances and increasing protectionist pressures at home, the Administration has come forward with a balanced and assertive market opening package designed to accelerate on the bilateral (country-by-country, product-by-product) and other negotiating fronts.

Bilateral actions

Over the past two years, the most widely reported actions initiated by the United States have been taken under Section 301 of the 1974 Trade Act, which calls upon the United States to challenge unfair practices in foreign countries. Since September 1985, the Reagan Administration has put the Section 301 mechanism to effectrive use by tackling foreign government obstacles to U.S. exports on 17 occasions alone, of which 13 have resulted in an end to these practices. In 1987, Section 301 actions included imposition of $300 million in duties on Japanese exports of electronic goods for alleged violation of a bilateral agreement providing U.S. semiconductor makers access to Japan's market. A host of similar steps were directed at the European Community, South Korea, and Taiwan for their alleged failure to provide equitable access to American imports.

Of at least equal significance, but less publicized importance, have been longer term U.S. initiatives to halt the spread of injurious dumping and subsidy violations. The record speaks for itself. According to the International Trade Commission (ITC), between 1982 and 1987, the United States completed no less than 321 countervailing duty (subsidy) and 562 antidumping (price-discrimination) cases.

Trade negotiations

Broader U.S. efforts to strengthen and expand free trade rules on the regional and global levels also constitute an important focus of American trade policy for two signficant reasons. First, it will enable the United States to obtain the brodest possible international consensus on what constitutes "free and fair trade" in a rapidly changing global marketplace. A key consideration in this regard is the principal of "non-discrimination," which in extending equal trade rights and obligations to all countries simultaneously strengthens the bonds of cooperation in support of open markets and equitable rules.

Second, strengthening and expanding free trade rules also has its flip side: that is, by working with its partners to establish up-dated definitions and appropriate enforcement machinery for handling unfair trade practices, the United States runs less risk of retaliation. The U.S.-Canada and Multilateral GATT negotiations are crucial in this regard.

U.S.-Canada free trade area

In December 1987, the United States and Canada agreed to enter into a free trade agreement. If implemented, the agreement provides for elimination of tariffs and a number of non-tariff barriers involving more than $130 billion worth of trade between the United States and Canada within 10 years, starting January 1, 1989.

GATT negotiations

Launched in the fall of 1986 in Punta del Este, Uruguay, the eighth multilateral trade round reconvened in early 1988 under the auspices of GATT. With world trade expected to grow by a healthy 4.5 percent this year, the time is ripe for significant breakthroughs in the GATT negotiations. In light of the organization's diverse membership—unlike the first seven rounds, this one prominently involves Third World economies—progress was slow in coming in 1987. But it came nevertheless. Here are some highlights:

Strengthening GATT.—In previous eras, dispute settlement procedures in the organization may have served the interests of GATT's members. With the entrance of large numbers of developing countries and the emergence of new problem areas (foreign investment and heavily subsidized agricultural trade, for just two) the Geneva bureaucracy, where GATT is headquartered, is confronted with the challenge of revising its dispute settlement procedures. In response to domestic U.S. concerns regarding cases of alleged market discrimination against American goods, the Reagan Administration submitted a "think piece" on GATT reform in 1987 calling for enforceable timetables for resolving disputes and participation of nongovernment experts on such panels. By the time the Uruguay Round concludes at the end of 1990, there will probably be a greater role for GATT is scrutinizing member country trade policies.

Trade in services.—Services exports—from insurance and banking to construction and transportation—are estimated to be worth $400 billion per year. Most of that is generated from Western industrial countries. Despite the importance of services to the global economy, however, these transactions are not covered by GATT. The United States and its Western partners pushed hard for its inclusion in the Uruguay Round, and succeeded. The West's first priority is to establish a framework of commercial principles for individual service sectors, such as telecommunications and banking. In November 1987, the United States came forward with a list of such principles. Negotiations promise to be difficult. Advanced developing countries such as India and Brazil maintain that opening their service sectors to international competition will undermine their fledgling banking, computer, and telecommunications sectors. Trade expansion does involve risks, but the United States has made it clear that future access to its market depends on developing country willingness to make meaningful concessions on services.

Trade-related investment.—Foreign investment plays an increasingly significant role in global trade. Although investment regulations in host countries frequently distort trade flows, GATT's present authority does not cover this area. If U.S. negotiators have their way, GATT may soon have that authority—at least with respect to negotiating agreements to discourage host countries from engaging in specific actions that restrict or distort trade flows.

Agriculture.—If the Uruguay Round succeeds in reducing distortions to trade induced by agriculture, it will constitute a major breakthrough. On the surface, GATT members strongly support such a move. In 1986 alone, agricultural subsidies were $15 billion in Japan, $23 billion in the European Community, and $25 billion in the United States. But progress in liberalizing agricultural trade in 1987 has been slow. The main disagreement is between the United States in alliance with the so-called "Cairns" group of developing and industrial countries versus the European Community. In July of last year, the United States proposed to scrap all farm subsidies that influence trade. The EC responded with a call for reductions in levels of government support, then seemed to reverse itself by calling for a higher level of EC border protection for certain crops in the short term.

These negotiations will not—cannot—resolve all of America's trade challenges. They can, however, provide a necessary political stimulus to more open and dynamic global markets upon which U.S. exports must depend.

Global expansion

The present imbalance in the global economy, between large U.S. external deficits and our trade partner's growing external surpluses, is unsustainable. The challenge for the United States is to help bring about a significant shift in import demand in the global economy—in a manner that helps the United States significantly expand its export trade by ensuring continued global expansion.

There are three ways to achieve this global readjustment, two of which are unacceptable, and the other of which can only occur with the full support of our trade partners.

Dollar devaluation

The United States has reached the point where further declines in the dollar's exchange rate could stimulate higher domestic U.S. inflation (through higher import prices), triggering a reduction in America's living standard. In addition, continued declines in the dollar's exchange rate value could trigger significant outlflows of foreign capital from the United States, which would in turn have a depressive impact on the U.S. economy. At this point, the dollar is already below its 1980 exchange rate levels, when the U.S. current account was still in rough balance. Rather than push for additional devaluation, a more thoughtful U.S. posture should be one to encourage more sustained exchange rate stability over the medium term in order to determine its effect on American trade competitiveness.

Slower growth

The United States can also bring about a reduction in its external deficits by slowing domestic demand. It "works." The last U.S. trade surplus ($2.2 billion), it bears remembering, was registered in 1975 in the midst of a severe recession. But such a course would be counterproductive for the world's largest and most dynamic economy. And such self-defeating policies—brought on by a combination of high interest rates and increased protectionism, for example—could severely constrict growth in foreign markets, which U.S. producers will increasingly rely on for their own export sales. Indeed, with global economic interdependence, a strategy of slower U.S. growth might backfire and no longer "work" at all.

Faster overseas growth

The most promising alternative for the United States, then, is to encourage its surplus-heavy West German, Japanese, and newly industrializing Asian partners (Taiwan and South Korea) to shift their growth strategies away from foreign markets by stimulating their own. Is this possible? Yes, provided, of course, that our allies recognize their own economic health depends on it, and are prepared to act accordingly.

Faster overseas growth would assist the United States in two vital ways. First, alternative markets are needed for developing country exports. Through 1986, the United States continued to pull in about 60 percent of Third World manufacturing goods, while Western Europe's and Japan's relative percentages were 28–30 percent and 6–8 percent over this period. Second, growth elevates the prospects for expanded U.S. exports to European and Asian markets.

The U.S. trade position reflected significant improvements on a volume basis in 1987, and should continue to do so in 1988. The key is to be found in export growth, which this year is estimated to contribute one percent to domestic GNP growth. These encouraging trends can be strengthened by U.S. policies designed to further liberalize the international trade system and support for growth promoting actions in our European, Asian, and European partners.

VI. THE EVOLVING U.S. ECONOMY

The ability of our free market system to adapt to change is a principal reason why the United States is the world's largest economic power. Innovation and new technology create employment opportunities and stimulate growth.

The composition and capacity of economic activity have changed dramatically over the years. Throughout our history, new phrases have been coined to describe an evolving U.S. economy, serving as a convenient chronicle of change. Such terms as the industrial revolution, iron-horse era, New Deal, service economy, and emerging information age each signify major developments. Farming obviously dominated American society before advances in mechanization and transportation unleashed tremendous potential for change and growth. Franklin Delano Roosevelt expanded both the size and role of government in the economy, a legacy whose economic benefits are still hotly defended and disputed today. The rise of the service economy is evidence of economic forces shaping the present as well as the future. In recent years, scientific breakthroughs in microchips and data transmission have led to production technologies and information resources unimaginable even a generation ago.

Change is not new. What is new is the speed at which the economy is evolving. The economy used to harness new inventions over spans of decades, giving society the luxury of time to adapt. Today, that adjustment period is much shorter. A modern-day Rip Van Winkle awakening today after 20 years' sleep would discover an alien world of remote-control VCRs, commonplace computers, instant-access global communications, life-reviving "miracle" drugs, artificial hearts, genetic engineering, assembly-line robots, microwave-popcorn, and moonrocks at the museum. These few examples illustrate the countless ways the economy has expanded into new frontiers bounded only by imagination.

Economic and employment trends

Over time jobs emerge and disappear; so do the goods and services produced by the people filling them. This natural occurrence is evident in shifts in output and employment at the national level. In the past 20 years, these shifts are very apparent.

The Federal Government collects information on gross national product and employment by type of industry: agriculture (including farming, forestry, and fisheries); mining; construction; manufacturing; transportation and public utilities; wholesale and retail trade; finance, insurance and real estate (FIRE); services; and government. The following table lists output and employment for these industrial categories.

TABLE VI.1.—REAL GNP AND EMPLOYMENT BY INDUSTRY, 1966–86

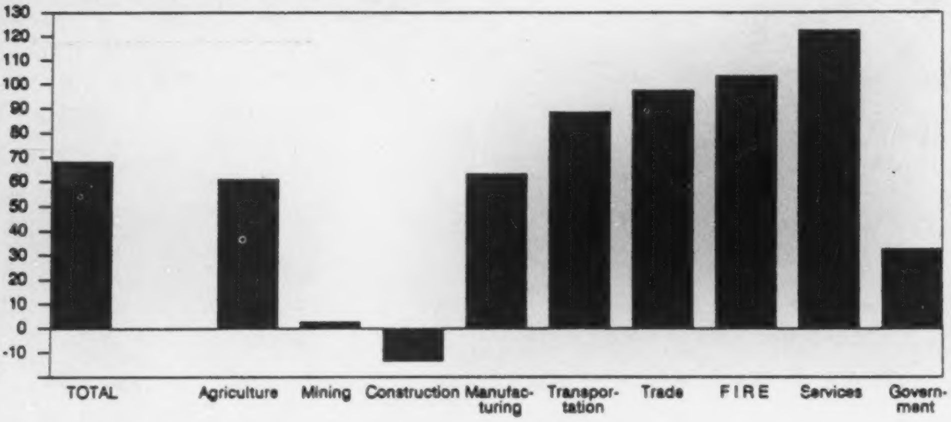
Industry	Real GNP 1986 (billions)	Real GNP 1986 (billions)	Percent change in GNP 1966–86	Employment 1966 (millions)	Employment 1986 (millions)	Percent change in employment 1966–86.
Agriculture	$62	$100	60.9	4.0	3.2	−20.5
Mining	115	118	2.7	0.6	0.8	26.3
Construction	194	168	−13.4	3.3	5.0	49.6
Manufacturing	498	812	63.1	19.2	19.2	−0.1
Transportation	174	328	88.5	4.2	5.3	27.1
Trade	326	645	97.4	13.2	23.8	79.9
FIRE	271	551	103.4	3.1	6.3	106.2
Services	254	565	122.5	9.5	23.1	142.9
Government	305	405	32.7	10.8	16.7	55.2
U.S. total	2,208	3,713	68.2	72.9	109.6	50.4

Note.—Real GNP = 1982 Dollars. Columns do not total due to rounding and omitted GNP non-industry categories. Percent changes are calculated on precise data.

Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Department of Agriculture.

Several observations are noteworthy and mostly good news. Eight of the nine industries expanded output, the exception being construction. Regarding employment, seven industries grew and only two declined—manufacturing (very slightly) and agriculture (substantially). In 20 years, real GNP grew an impressive 68 percent and overall employment increased by 50 percent. Since output grew faster than employment, productivity increased, and U.S. living standards were raised. These general trends serve as useful benchmarks when analyzing changes among industries, because growth has not been uniform. In fact, the contrasts are pronounced, as Chart VI.1shows.

Chart VI.1
OUTPUT GROWTH BY INDUSTRY
1966-1986, Percent Change in Real GNP



SOURCE: Table VI.1

The service industry has emerged as the output growth leader, expanding at nearly twice the rate of the other sectors taken together. Comprised of a broad array of activity, including legal, health, education, repair, and personal and business services, such strong growth comes as little surprise. Three other industries—FIRE, trade, and transportation—also grew faster than the economy on the whole.

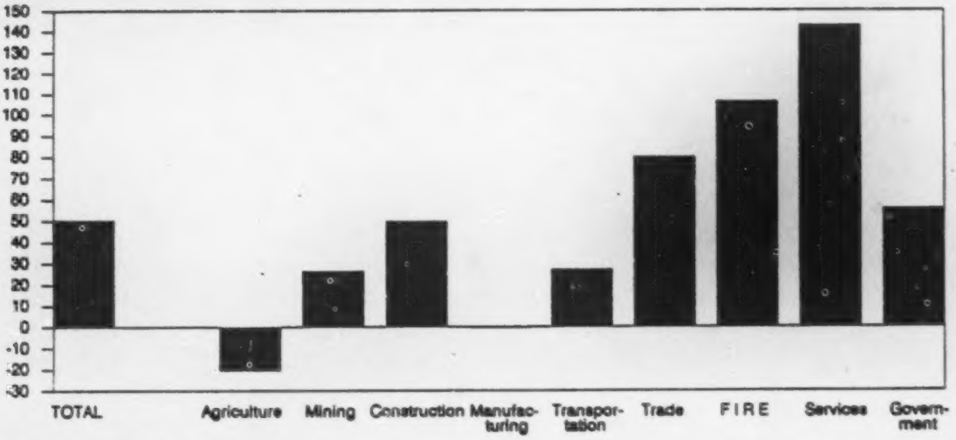
Four other industries grew, but not as rapidly. Manufacturing and agriculture posted growth rates exceeding 60 percent. The government sector expanded by one-third. Mining barely grew, amounting to about 3 percent over the 20 year period. The significant price decline in commodities in the 1980s is one reason for this slow growth. Construction was the only industry to actually contract between 1966 and 1986. A partial explanation of this decline is the inflation-prone nature of the industry. Construction costs have skyrocketed over time, compelling businesses and individuals to economize on construction purchases.

If an industry grows faster than the economy overall, its share of GNP increases. By the same token slower or negative growth implies a declining share. In this manner, services has grown from 11.5 percent GNP to 15.2 percent—the largest increase in the relative size of any industry. FIRE and trade both increased their shares by about 2.6 pecent, and now account for 14.9 and 17.4 percent respectively. The relative sizes of transportation, manufacturing, and agriculture remained about the same. Three industries saw their relative standing decrease. Mining fell from 5.2 percent to 3.2 percent, Construction suffered the largest decline, from 8.8 percent of GNP in 1966 to 4.5 percent in 1986. Government's share declined as well; its 1986 share, 10.9 percent, was 2.9 points lower than the 1966 figure.

The employment picture does not coincide precisely with the output performance of industries; Chart VI.2 illustrates this.

Thanks to technical advances, some industries have incorporated new processes that have altered the amount and types of labor required. The use of new technology has varied considerably by industry; consequently the demand for labor among industries has shifted. Nowhere is that demonstrated more dramatically than in agriculture, the only industry where employment has decreased markedly. The number of jobs has fallen by one-fifth, even through agriculture output has climbed by three-fifths. The reason? Agriculture today utilizes better production equipment and management skills.

Chart VI.2
EMPLOYMENT GROWTH BY INDUSTRY
1966-1986, Percent Change



SOURCE: Table VI.1

Manufacturing employment has been the object of considerable discussion in the 1980s, particularly where plant closings have led to high local unemployment rates. The impact of regional or sectorial job losses, however, has been far from davastating in the aggregate. Overall manufacturing employment is little changed from 20 years ago, but it peaked in 1981 and declined by 1 million before rebounding again. By last year the manufacturing sector recovered jobs lost in the 1981–82 recession. Even if its employeemnt numbers look fairly stable over time, employment in most other industries advanced, shrinking manufacturing's share of total employment. As the largest employment sector in 1966, its 26.4 percent share fell to 17.5 percent in 1986, dropping it to third largest.

In the meantime, employment growth in wholesale and retail trade and services has mushroomed, accounting for over 6 of every 10 new jobs formed. Both have overtaken manufacturing in terms of employment share. FIRE has doubled its employment ranks since 1966, but remains a smaller industry at about 6 percent of all employment. Construction employment has grown at the same rate as the economy despite the decrease in output. Government employment also grew at the same pace as overall job growth, but would have been faster if job creation in the Federal sector had not slowed in the 1980s.

Mining and transportation employment grew modestly over the 20 year period, at half the rate of the other industries combined. Those two sectors had opposite results in output, however, Real output in mining increased a paltry 3 percent, whereas transportation (which includes public utilities) grew nearly 90 percent. The communications field is in this category, and obviously, the "information age" has left its mark. The explosion of communications usage sine 1966 is reflected in a 225 percent increase in output.

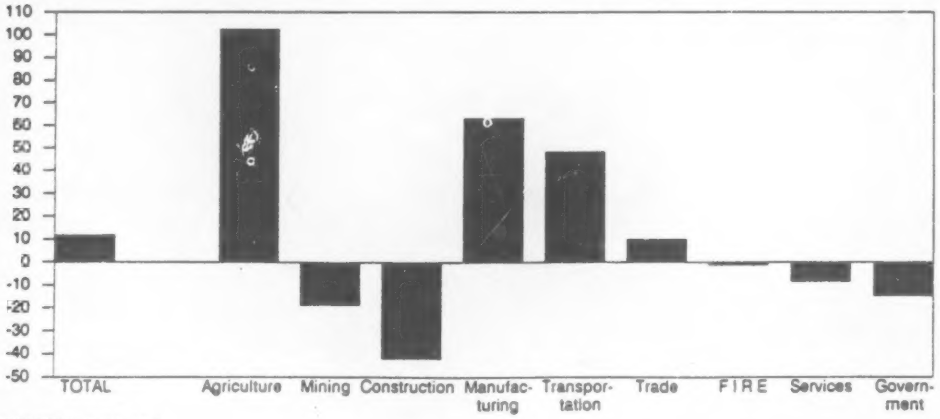
Productivity implications

While this story has a happy ending, the plot is not all a bed of roses. Economic performance is lackluster in the fastest growing industries. Chart VI.3 illustrates the problem.

Chart VI.3

GROWTH IN REAL OUTPUT PER EMPLOYEE, BY INDUSTRY

1966-1986, Percent Change in Real GNP/Employment



SOURCE: Table VI-1

Interpreting this chart requires a word of caution for two reasons. First, this broad measure of productivity growth—change in real GNP per employee—is not to be confused with the government's standard measure of productivity, which is output per hour. Second, the economics and statistics professions recognize that "productivity" is difficult to define and quantify for the services sector, for which no tangible "product" exists, even though the improvement in quality over time is obvious to any observer. Thus, any analysis of worker performance is subject to disagreement. Nonetheless, this chart serves a useful illustrative purpose.

The chart reveals a tremendous variation in productivity performance among industries. Agriculture has outperformed all other sectors because of tremendous technical application. In just 20 years output per worker has doubled. This productivity boom, while great for the Nation and the world, has resulted in a sharp decline in employment needs for the industry, and explains the disappearance of many family farms. Manufacturing is another industry where technology has radically altered the workplace. The result is a 63 percent increase in production per employee. New employment opportunities in manufacturing have been modest over the time period, and regional migration of employment opportunities has severely affected many older industrial areas.

The transportation and public utilities industry reflects a mixture of strong productivity increases and fair job growth. Output per worker, growing 48 percent, was quadruple the 12 percent rate for the overall economy. However, employment growth for the sector was just half the average for all industries. The trade sector's output per employee grew 10 percent, 2 points under the national average. Moreover, this slower productivity record affected a growing number of employees: over 10 million jobs were created in wholesale and retail trade. This expansion tended to reduce national average productivity statistics for the industry.

This trend of declining productivity performance in growing industries is even more revealing as the comparisons continue. The remaining sectors declined in output per employee. FIRE, which doubled its employment size, experienced a 1 percent decrease by this measure. The service sector, which more than doubled with the addition of 13 million new workers—one-third of all new jobs—was hindered by an 8 percent fall in output per worker. Government had the next worst decrease, 14 percent, followed by mining's 19 percent decline. At the bottom of the list is construction. The combination of an increase in employment and a contraction in output caused a 42 percent plunge in real output per construction worker.

The high employment growth sectors—services, FIRE, trade and construction—show lower productivity performance. How has this happened? As a partial explanation, the service economy and information sectors are composed of many "infant industries" that naturally will endure "growing pains." Inefficiencies and "trail and error" problems can't be corrected as quickly as those on the assembiy line. Nor can many services be mass-produced on the same scale as products—at least at present.

The art and science of management, while centuries old, is just now beginning to merge the skills of business organization and function with human relations psychology, and sociology—important ingredients of service and information industries. New technologies are constantly making old workstation methods obsolete, requiring adaptation and massive retraining. Service jobs often demand sharp intellectual judgment. That comes from experience, which now is being gained.

The U.S. international competitiveness issue is especially important in regard to sagging productivity in high-growth industries. At present, foreign competition in services is not as intense as in manufacturing. Two areas of international competition are heating up, however, financial services and insurance. In particular, the future success or failure of Japanese investment firms in New York and U.S. firms in Tokyo will serve as an early indicator of our ability to perform amidst increasingly fierce competition

Sobering as this productivity portrayal is, it hasn't dampened overall economic activity, as evidenced by five years of solid growth. In 1987 real GNP growth of 4 percent and employment increases of 3 million have surprised most forecasters, and according to the Blue Chip Economic Indicators, few are predicting a recession this year or even next.

Shortcomings in economic analysis

Tracking and interpreting the progression of the U.S. economy is not straightforward. Over a period of just 10 or 15 years, job tasks and economic output have changed enough to make classifications and comparisons difficult. The traditional industrial categories used by Federal data collectors were devised some 40 years ago. Like most time-series data, the information is inherently biased against the present and future. That is, new industries today are placed somewhere in the old classification; old industries are not retrofitted into a new classification scheme to better represent the modern economy.

For example, at the broadest aggregate level, public utilities and the transportation sector are lumped together. Serious economic analysis may be impeded by combining such unrelated fields as nuclear electric generating, radio stations, overnight package service, and semi-truck delivery. Historically speaking, this classification may have served the needs of regulators since public utilities and the transportation industry were usually governed by the same overseers. However, there is little economic sense in this combination today. The current classification's treatment of services presents another problem—and one magnified by the fact that the fastest growing sector is services. Services does not employ just auto repairmen, beauticians, and the like. Rather, it is diversifying into highly specialized and technical fields requiring vastly different skills. For that reason, a disaggregated services classification would reveal more relevant and useful information about the U.S. economy.

Nor are traditional industrial categories mutually exclusive, further clouding the picture of exactly what economic activity is occurring and how it is changing. As an illustration, a custodian's contribution to GNP is allocated to manufacturing if he is employed by General Motors; however, his GNP contribution would be allotted to services if he is an independent contractor providing identical custodial work for General Motors. Thus, similar economic activity shows up under different industrial categories, which can result in distorted analysis.

Occupation trends

Besides breaking down employment by industry, the Bureau of Labor Statistics compiles the occupational composition of the labor force. This information helps to overcome the problems cited above. The six major occupational groups are managerial and professional specialty; technical, sales and administrative support; service; precision production, craft, and repair; operators, fabricators, and laborers; and agriculture (farming, forestry, and fisheries). This listing, except for agriculture, also is an approximate ordering from white collar to blue collar or from higher skilled occupations to lower skilled. Table VI.2 lists the components of the major occupational groups for the years 1972 (the oldest data available by this classification) and 1987.

TABLE VI.2.—EMPLOYMENT BY OCCUPATION 1972–87

Occupation	1972 (thousands)	1987 (thousands)	1972 percent	1987 percent	1972–87 change (thousands)	1972–87 percent change
Executive/administrative/managerial	7,278	13,312	8.9	11.8	6,034	82.9
Professional specialty	8,830	14,426	10.8	12.8	5,596	63.4
Technicians	1,928	3,346	2.4	3.0	1,418	73.6
Sales	8,566	13,480	10.4	12.0	4,914	57.4
Administrative support	13,125	18,256	16.0	16.2	5,131	39.1
Service	10,831	15,054	13.2	13.4	4,223	39.0
Precision production	10,347	13,568	12.6	12.1	3,221	31.1
Operators/assemblers	8,600	7,994	10.5	7.1	−606	−7.1
Transportation	4,143	4,712	5.0	4.2	569	13.7
Handlers/laborers	4,641	4,779	5.7	4.3	138	3.0
Farm/forestry/fisheries	3,843	3,507	4.7	3.1	−336	−8.7
Total	82,132	112,434	100.0	100.0	30,302	36.9

Note.—Numbers may not add due to rounding.

Source: Bureau of Labor Statistics.

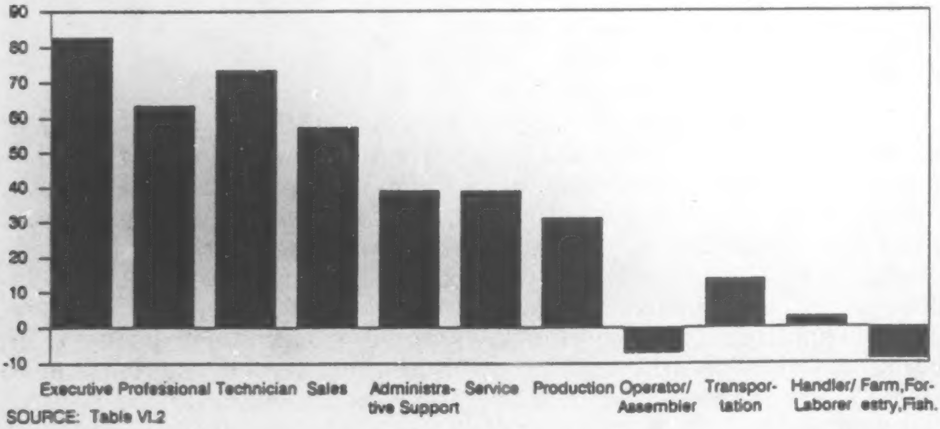
This table dramatizes how much the economy has changed in recent years. Of the 30 million jobs created in this 15 year span, over one-third were in managerial and professional specialty. Another third were in the next white collar group—technical, sales and administrative support. Just two of the components actually decreased in employment numbers. They were operators and assemblers, and agriculture; together, just under one million jobs shifted into other sectors.

Chart VI.4 illustrates how growth rates varied considerably among occupations over this period. Overall employment growth from 1972 to 1987 was 36.9 percent. White collar occupations exceeded this average, and consequently their share of total employment increased as the previous table indicates. Although employment in blue collar occupations expanded by about three million since 1972, these gains did not keep pace with overall growth.

Chart VI.4

EMPLOYMENT GROWTH BY OCCUPATION

1972-1987, Percent Change



SOURCE: Table VI.2

The policy dimension of economic evolution

The message in these output and employment numbers over time is this: Private sector managers and planners, public policymakers and the entire labor force must prepare for the inevitable and continual changes demanded by an evolving economy. So long as human ingenuity creates new opportunities, the demands for an adaptable workforce grow stronger.

Retraining, a concept that carries the connotation that new skills are learned after old ones become obsolete, must give way to continual training as a job requisite. By updating skills regularly, unwanted career or employment disruptions can be minimized. The transformation of the U.S. economy has one clear outcome: Without productivity increases, our living standards cannot continue the strong advances to which Americans are accustomed. Taking steps to improve productivity in the service economy is vital to our future economic growth.

The private sector plays the crucial role in dealing with economic change. Our competitive free market system responds to change efficiently. Adequate allocation of resources devoted to retraining workers and reinvesting in capital is best done at the microeconomic level, where innovation and adaptive application flourish. Labor and industrial planning at higher levels—particularly the Federal—may have noteworthy goals, but accomplishing those goals is another matter. History has shown that public sector planning often produces lackluster results at great expense to taxpayers. This has the "double negative" effect of reducing the private sector's productive ability by wasted tax effort. Federal programs that recognize and incorporate elements of the market stand the best chance of success.

Understanding how our economy functions is integral to sound economic policymaking. That task has become extremely challenging with the rapidity of change. This transition is not limited to the U.S. domestic economy, either. The evolution of the global economy presents a dual challenge for U.S. policymakers.

First, the U.S. economy is not only the world's largest, it also is the most influential. Other nations cannot escape the effects of a U.S. recession or expansion. The United States is both a provider of capital abroad and a magnet attracting foreign capital. The dollar is the most widely accepted unit of international exchange. Hence, U.S. fiscal and monetary policies are influenced by the must take into consideration international economic conditions. Second, competition and trade are becoming international in scope where domestic boundaries are becoming less significant in economic terms. From an economic perspective, attempts by any country to make national boundary distinctions in economic policymaking—such as trade restrictions or export controls—result in lost opportunity.

The next chapter discusses in detail the necessity of a global perspective in understanding how changes in the U.S. economy are influenced by an emerging world economy. These relatively new trends in international finance and trade present unique challenges and opportunities to virtually every participant in the global arena. For most of history, the United States by virtue of its size and wealth could grow internally and not worry about international economic policy considerations. Today, that is not necessarily the case, as U.S. and foreign policymakers are dealing with a growing economic interdependence, where open borders and free markets are essential for mutual prosperity.

VII. TRENDS IN INTERNATIONAL FINANCE AND TRADE

The world has been changing rapidly in the last quarter of the 20th century. The process is accelerating. It is a truism that the world is "growing smaller" with advances in telecommunications technology, air travel, and trade—particularly international trade in services.

The ecology movement in the 1970s coined a phrase, "the global village," to describe the closer connections between industrial growth in one part of the world and pollution effects in other areas. Everyone is your neighbor. Thousands of miles or thousands of millimeters: the distinction vanishes. This 1970s concept from the ecology activists, however, was just a "weather report." The "news report" in the 1980s is the industrial and financial integration of the world economy.

Any analysis of the current economic scene must address this rapid cohesion of international society. The economist must avoid old habits of mind, of viewing a single national economy as his subject, because the businessmen and consumers whose behavior he wants to study do not limit themselves to those borders. Economics is a behavioral science, and the economist must adopt the same frame of reference as the market he studies. The proper frame of reference is global in scope. There is a need to better understand this rapidly chaning and expanding setting.

Increasingly what is traded between individuals as well as between nations is information, specialized management and engineering talent, professional services, financial services, and electronic machine tool components. Bulk trade in commodities internationally is still large and valuable—oil, grain, and heavy machinery—but small, high-value, high-technology components and the human-value-added factor that leads to trade in semi-finished products are the most rapidly growing areas of international trade. American companies today are not limited to local suppliers. Parts likely can be found in Cleveland or Houston, or Taiwan or Belgium. In any case, delivery is only a telephone call and 24 hours away.

It is not our purpose to pass judgment on whether these relatively new global finance and trade trends are good or bad—good or bad for the United States, or any other country, or the world for that matter. We do note, however, that free trade is a basic tenet of our form of economic democracy. World-wide free trade is an acceptable and worthy U.S. international policy and goal. The U.S. economy, being the envy of the world, has been the model of this developing global economic freedom. Our purpose in this section of the report is to describe and understand these trends and their implications and consequences, to ensure that the United States maintains its leadership in this historic movement.

Modeling the world economy

Economists specializing in international trade theory have traditionally divided the analysis into a discussion of "closed economies," or those where external trade plays no role, and "open economies." The distinction is a tool basically to allow teachers and researchers to look carefully at the changes an opening of trade will produce in an isolated society. In the 19th century, moreover, it was clear the cost of transportation and communications tended to focus trade and economic interaction among people who lived near each other. Thus a further distinction between a "small open economy" and a "large open economy" was invented.

A "small" open economy is simply open, but a "large" open economy is one that is semi-closed because it does most of its trading within itself, due to transactions costs, which make external trade often uncompetitive. The terms of trade are determined internally by domestic competition, not externally by a world market. In such an economy, a new product on the world scene would more likely lead to new domestic manufacturing. In a small open economy, by contrast, an increase in imports from original producers in whatever nation it may first have been introduced would be the more likely market arrangement. Yet today, what are the new products? They are increasingly specialized, non-generic innovations; they are professional services, information, and integrated electronic systems that are more in demand as they become more microscopic and easier to carry.

In the analysis of rapid economic change today and tomorrow, the most important development in economic theory is the dissolution of the "large open economy" model. If an economic system is legally open, there are no longer significant "transactions costs" to shelter it from the world trading system. The distinctions of that model are no longer needed—it is no longer accurate to view the trading world as divided into large open economies, setting the terms of trade and with significant degrees of freedom in areas such as tax policy, monetary policy, and the role of government in subsidizing favored members of society. It is significant that leaders of the Western industrialized nations now meet annually at an economic summit and talk affirmatively about policy coordination, although the degree of success has been unclear.

Global trends: the goods markets

The integration of the world's markets for goods is not as striking as the integration of the capital markets, but is nonetheless an important feature of the changing nature of international economics. Just as capital now flows across increasingly transparent country borders, the national "identity" of goods produced and sold around the world is also more difficult to see. Exports are becoming cooperative ventures among nations. Trade statistics are unable to reflect this new reality and simply report the shipment of a good from one port to another regardless of the number of nations involved in the production. As a result, annual or monthly trade balance statistics as indicators of international competitiveness are increasingly misleading.

The simple notion that an export is a good developed and produced in one country and sold to another country is becoming archaic. Now a product is often developed by a corporate management located in one country, with technology imported from another, manufactured in a third country, and marketed by jobbers from a fourth to be sold around the world. More than ever before, corporations are unrestrained by national boundaries in the production and sales processes. In the words of George Gilder, "* * * this is not trade but horizontal and vertical integration across borders."

Examples of this integration abound. One prominent case is the Hyundai Motor Company of Korea. The success of the Hyundai Excel in the American market has highlighted the extent of integration in the world auto market. The Excel is the product of a Korean-based company that is partly owned by Mitsubishi Motors, which in turn is 24 percent owned by Chrysler Corporation. The car is produced in Korea based on design technology from Japan and is being marketed in the United States by Mitsubishi. The building of a production facility in Canada further complicates the issue of nationality.

Another example is the Honda corporation. Honda U.S.A. is increasingly an American company with a majority of workers and sales in the United States. The strong yen, which makes direct investment here a bargain, is encouraging the company to continue with its multi-billion dollar investment program in the United States. Honda U.S.A., however, is not just manufacturing cars for the American market. The company recently began exporting American-made Hondas back to Japan.

The level of integration of the world's electronics industry is difficult to overstate. Virtually every major company is linked via equity, licensing, joint venture, or marketing agreements. For example, AT&T and Olivetti, American and Italian corporations, respectively, are cooperating in the production and marketing of computers. AT&T is providing state-of-the-art computer operating systems and other technical advances, while Olivetti is contributing its marketing and distribution network to the joint venture. The result of this cooperation is a better, more competitive product that is available through an established and widely recognized name. The arrangement clearly works to the benefit of both concerns.

This international cooperation in the production of goods obviously yields benefits. Corporations are not limited to their own country in search of the best design technology, production facilities and marketing strategies. Consumers benefit by being able to purchase a higher quality product. Prices also may be lower, or at least more controllable, because international integration allows firms to expand production in areas where currency trends are favorable.

Work by Robert Lipsey and Irving Kravis for the National Bureau of Economic Research supports the benefits of integration. They report that U.S. multinationals have had a competitive advantage over American companies without an international presence. In fact, their research shows that the worldwide share of manufactured exports produced by U.S. multinationals has been nearly stable since 1966 despite the appreciating dollar during the early 1980s. One reason is that while the rising dollar hurt U.S.-based exporters, it was a boon to overseas affiliates and units of American multinationals. Depending on where the affiliate was located, the dollar bought up to 50 percent more in new plant and equipment, marketing, and research and development. This study refutes the notion that U.S. products have become uncompetitive on world markets.

This success story, however, does not receive much attention because it is not reflected in the monthly trade statistics reported by the Department of Commerce. Trade statistics simply report the value of goods shipped from one port to another. They do not begin to measure the degree of worldwide cooperation associated with the production of goods. An export from a Texas instruments plant in Japan back to its parent in the United States is counted as an American import. Similarly, the shipment of a Honda Accord from a plant in the United States back to Japan will appear as an American export.

This intracompany-international trade is not insignificant, as shown in Tables VII.1 and VII.2. In 1985 (the latest available year of data), over 26 percent of American exports were produced by foreign-owned companies located in the United States, while about 18 percent of U.S. imports came from American-owned affiliates operating overseas. Much of this trade is simply shipments from an affiliate to its parent. Even the current account is increasingly unable to reflect complex corporate structures, although the current account balance is a better measure than the trade deficit because it captures earnings of overseas affiliates.

TABLE VII.1.—U.S. EXPORTS, 1985

[Dollars in billions]

	Exports from foreign-owned companies in United States	Total U.S. merchandise exports	Percent of total
Total	$56.4	$212.8	26.5
Manufacturing	12.9		
Chemicals and allied products	5.2		
Machinery	3.2		
Wholesale trade	38.4		
Automobiles and equipment	3.3		
Metals and minerals	10.8		
Farm product raw materials	20.3		
Other industries	5.1		

Source: "Foreign Direct Investment in the United States," U.S. Department of Commerce.

TABLE VII.2.—U.S. IMPORTS, 1985

[Dollars in billions]

	Imports from American-owned companies abroad	Total U.S. merchandise imports	Percent of total
Total	$62.3	$345.3	18.0

TABLE VII.2.—U.S. IMPORTS, 1985—Continued

[Dollars in billions]

	Imports from American-owned companies abroad	Total U.S. merchandise imports	Percent of total
Petroleum	14.3		
Manufacturing	43.7		
Machinery	5.4		
Electronic equipment	5.8		
Transportation equipment	23.3		
Other manufacturing	9.2		
Other industries	4.3		

Source: "U.S. Direct Investment Abroad," U.S. Department of Commerce.

An important implication of these statistical deficiencies is that trade balances are not reliable indicators of the competitiveness of a nation's industries. National competeviness is shaped by domestic economic conditions such as labor costs and factor input prices, as well as monetary exchange rates and factors determining product quality such as technology and management. The competitiveness of multinationals, on the other hand, is basically dependent on factors affecting product quality and design because such firms compensate for adverse domestic economic conditions by expanding production where conditions are more favorable. In fact if a dynamic U.S. multinational company expands its market share both here and overseas, but produces some vital components offshore, the U.S. trade balance will worsen, all else equal, because shipments from foreign affiliates to U.S. parents will be reported as imports. Increased sales of their final products domestically will simply not be included in trade statistics.

For these reasons it is questionable to place any undue importance on bilateral trade balances. A surplus or even balance in the trade accounts does not necessarily imply international competitiveness. America's dynamic corporations must be as competitive as possible and have access to foreign markets. Moreover, as international integration progresses, current statistical reporting of product movements will become increasingly unable to reflect economic reality. Policies that are based on them will likely result in failure or worse, economic waste and unemployment.

Global trends: the financial markets

The integration of the world financial markets is even more significant than the integration of goods markets. The gross movements of financial capital among world markets is estimated to be 10 times greater than the value of current account trade. The reason why capital movements are important, of course, is because capital movements—investment opportunities—direct world trade and affect employment opportunities and wage rates in every corner of "the global village." In 1985, a Study Group was established by the central-bank Governors of the Group of Ten countries to examine recent innovations in, or affecting, the conduct of international banking. The report, Recent Innovation in International

Banking, under the chairmanship of Sam Y. Cross of the Federal Reserve Bank of New York, was published by the Bank for International Settlements in April 1986. In addition to publishing for the first time a compilation of statistics on trends not otherwise measurable, the report examines the growing unification of capital markets.

What is even more interesting, however, is the documentation in the report of the growing role of currency substitution in world financial markets. The report begins a chapter on "Global Integration of Financial Markets" with the comment, "The roots of the present trend towards a global integration of financial markets go back to the 1960s when the development of the Euro-currency and Euro-bond markets heralded the advent of truly international financial markets." Today there are financial instruments denominated in Euro-dollars, Euro-marks, Euro-yen, European Currency Units (ECU), Special Drawing Rights (SDR), and other more exotic multiple currency arrangements are legally possible.

The Bretton Woods system, established in 1944, envisioned a world with free movement of trade, but autonomy of each nation's investment policy and a world currency system in which sovereignty determined the name and the exchange rate of monetary units. With all currencies based on the dollar instead of a gold reserve, the Bretton Woods plan otherwise replicated the 19th century system. When the free movement of reserves was jeopardized by American policy in the 1960s, the rest of the world responded by "denationalizing" the U.S. dollar—the Euro-dollar was born. Understanding the role of denationalized currency units helps explain what drives currency volatility and persistent trade deficits in dynamic economies.

World capital movement finance world trade. Both economists and non-economists think about trade with mental pictures we take from daily life. Importing a shipload of automobiles from Korea is conceptually the same as buying a bag of groceries at a neighborhood market, but paying for them is quite a different matter. Money itself may not even change hands, but capital market instruments are sold and re-sold as an integral part of buying and selling good and services.

Money, in the strict sense, does not earn interest, and nobody with a large sum of money should let it sit idle. The more rapidly money can be exchanged for an interest-bearing capital investment until it is needed for payments, the better off any money manager will be. Investment yield and risk of default, or unexpected reduction in yield, require continuous monitoring because circumstances are always changing. This factor in capital management is the same both in purely domestic and international finance.

Yet, world capital movements also do much more than finance world trade. Exchange rate risks become an issue because no investor is limited by national boundaries or national currencies. The prudent management of capital assets in a world market requires an alertness to investment opportunities and exchange rate risks. The more efficient international capital markets become, the more capital instruments themselves acquire a role in the payments system because they become more liquid, standardized, and fungible. It becomes possible directly to barter capital assets rather than to sell them for money.

Financial flows in an open world economy

A growing economy, like a growing child, absorbs more from the surrounding world. As outlined in Chapter IX, inflows of foreign capital for investment in the United States have been called "debt," but this misleading label includes direct investment such as new factories, as well as stock market investments and bank deposits by foreigners. A growing economy also absorbs more of its own production domestically, which is how production can grow while exports lag.

Estimates of the total worldwide movement of capital can only be estimates, of course, because capital movements are often just changes in ownership of assets. Changes in ownership are typically negotiated and executed privately, confidentially, and with no immediate visible effect on any physical or tangible asset. If a Japanese citizen residing in France should buy a dollar-denominated General Motors bond from a German citizen residing in Buenos Aires, paying with a check drawn on a Swiss bank and deposited in another, there would be no recorded international capital movement. Yet, to make the world's accounts balance, there ought to be debit and credit entries to show a capital outflow from the United States to Germany and an inflow to the United States from Japan. The only reportable transaction might arise if the payment were in U.S. dollars, and each Swiss bank used a different New York correspondent bank to hold its Euro-dollar reserves. If only one bank, however, in Switzerland or New York, were to debit one account and credit another, the movement of capital would be invisible.

The significance of this focus on the role of capital movements is it changes the way we must think about monetary and fiscal policy. In the Keynesian as in the neo-classical economic framework, the government is an agent external to the system. Government spending is an autonomous expenditure; the creation of reserves by a monetary authority injects exogenous liquidity. The pace and level of economic activity is driven by the transfer of command over resources by these autonomous expenditures and/or exogenous injections of capital market liquidity. In a world of open economies, however, the one-day movement of capital in and out of a nation may exceed changes in government spending and monetary reserve creation for an entire year. These market actions that inject or withdraw capital from an economy have an autonomous or exogenous impact.

With the end of inflation and the recession of 1982, and the 1981 tax cuts, the United States has become the world's most powerful investment magnet, as tax rates plunged and real interest rates soared. U.S. manufacturing output increased at an annual rate of 3.4 percent from 1980 to 1986, up from only 2.8 percent annually the previous decade. During the Reagan Administration, manufacturing productivity has increased 31.6 percent, whereas in the seven years, 1973–80, it grew 8.5 percent. At the same time, unit labor costs have fallen by more than 40 percent. Rapid U.S. economic growth has attracted foreign investment and increased imports of capital goods, just as foreign capital has further impelled the U.S. growth.

The result was that capital, which in the 1970s had been pouring out of the United States at an annual net rate of more than $27 billion per year to avoid rising tax rates and negative real interest rates, began to be invested in the United States itself, as Table VII.3 illustrates. The realization that many loans to Latin America and the Third World were bad loans, which could not be repaid, contributed significantly to the abrupt halt in capital outflow as well.

TABLE VII.3.—CAPITAL AND TRADE INFLOWS, 1982–86

[In billions of dollars]

Year	Net capital inflows	Current account deficit
1982	−27.1	−9.1
1983	+35.5	−46.6
1984	+79.1	−106.5
1985	+94.4	−117.7
1986	+117.6	−141.4
1987	+138.8	−160.7

Source: Department of Commerce.

Even more significant than the change in America's role from the world's major investor to the world's best investment opportunity has been the emergence of Japan. In a very few years, the large volume of capital investment from Japan has had a major effect on world capital markets. Prior to the 1980s, major investing nations such as Japan enforced capital controls that inhibited their investment outside Japan. The worldwide diversification of Japan's accumulated savings in the short period since eliminating capital export restrictions in the 1980's has given that nation a visibility much greater than if the entry of Japanese investments into world capital markets had been gradual over 30 years. Much less attention is given to growing investment holdings by Europeans, Canadians, Americans, and other industrialized countries around the world, but the trend toward international diversification has been powerful and accelerating.

Thus, one of the most important factors explaining movements of exhange rates, and capital, is the investment opportunities in different parts of the world. Just as various states and regions of the United States have different growth rates, which are reflected in real estate values, unemployment rates, and net increases in population, due to factors such as raw material and energy prices, regulatory policies, and tax rates, so the international investors favor more laisse-faire climates and avoid jurisdictions more adverse to economic development.

Even more important, policy changes that will affect the demand for capital assets—tax rate changes, attempts to manipulate interest rates or exchange rates, or even regulatory reforms that change capital market transactions costs—will drive a currency up or down. But exchange rate movements are indicators of favorable or unfavorable policy, not causes. Chapter IX discusses in fuller detail recent experience with foreign capital movement into the U.S. economy.

At a time when international concern about trade restriction sentiment in the U.S. Congress is a serious topic of discussion, it must be remembered that Euro-dollars and Eurobonds—the external-international use of American dollars—were a direct response to the interest equalization tax of the Kennedy-Johnson Administration. That tax was the last, futile effort by the U.S. Government to enforce a segregation between domestic and international capital markets. Instead, it catapulted the world monetary system into a new era of transnational currencies that have permanently internationalized the capital markets. The general rule is that no manmade barrier to human will, in the pursuit of opportunity, can long endure. A movement to protectionism by the United States today would no doubt have just as unforeseen and completely defeating results as well.

VIII. THE DOLLAR IN THE WORLD ECONOMY

Traditional thinking in monetary theory has raised many questions about the determination of exchange rates and the relationship between monetary growth rates, interest rates, and exchange rates. It needs a new look. The deregulation of capital markets and floating exchange rates have upset many old patterns and expectations. Yet, there are still too many issues unresolved to support a new unified theoretical paradigm. Our observations here, just as in Chapter VII, are intended to contribute to a framework for further research.

In the classicial, gold-standard model, a trade deficit implied an export of bullion, with a decrease in the money supply; rising interest rates would cause a slowdown of growth in the deficit nation, imports would fall and exports rise. Domestic capital formation and savings would decline. A trade surplus would imply an import of bullion, falling interest rates, and rising investment and growth. But in the classical model, taxes and regulatory policy are assigned minor and passive roles and capital movements are relatively small in comparison with domestic savings. Investment opportunities are neither created nor destroyed by government policy.

Today, international capital movements are much larger than domestic savings and capital formation, and policy intervention is much more important and unpredictable than it was in the classical, gold-standard world. Indeed, government policy is one of the most important factors in determining the profitability of investments. In this emerging picture, it is the capital inflow in pursuit of growth opportunities that stimulates a trade deficit, and it is the specter of a policy-motivated devaluation of currency, or increase in taxes or government regulation, which panics a stock market crash as foreign holders rush to sell.

Whereas real factors such as changes in the trade balance or rates of economic growth, as well as purchasing power parity, must have an influence in the determination of exchange rates, the value of the dollar in terms of other world currencies is actually determined by billions of individual transactions, in a world market continuously monitoring for potential policy surprises by the U.S. Government or other major nations. Indeed, the market participants are often more concerned to second-guess the impact a news release may have on policymakers than to evaluate the impact on consumers and producers of real, newsworthy events.

Forces influencing exchange rates

The volatility of exchange rates and the seeming absence of an equilibrium value for currencies in terms of each other is understandable only in the context of the international capital market. A "falling dollar" is not a phenomenon of the same nature as the falling price of corn or soybeans, because commodities have an ultimate consumption demand their spot price reflects. In the case of currencies, however, it is the demand for the financial and real assets denominated in a currency that is reflected in the exchange rate, not demand for the currency itself. Capital inflows—the increase in demand for assets denominated in a currency—will cause a currency to rise, and capital outflows (decrease in demand) will cause it to fall.

No one believes there is an "equilibrium value" of a share of stock on the New York Stock Exchange that could not change the next moment. In the international capital market, the "dollar" is like a share of stock—except it is actually a filter, a lens, through which the value of corporate shares or bonds are seen by investors who measure their gains and losses in yen, marks, pounds, or ounces.

The powerful effect of policy anticipations in the international currency markets can be seen in the factors contributing to the stock market plunge of last October. Four days before that event, Treasury Secretary Baker was widely quoted as suggesting a devaluation of the dollar against the German mark might be considered. In the manner common to rumors, this remark was misinterpreted and exaggerated, but consider the effect such an official policy would have on foreign holdings in the U.S. stock market.

Even in an unchanged market, in terms of domestic currency, an impending decline in the foreign exchange value of the currency would be a real decline to the foreign investor. If a German investor in the United States were persuaded the dollar would drop from 1.75 to 1.50 marks, in his view a share of stock selling for $100 is going to decline from 175 German marks to 150 marks, even if its dollar price were unchanged. Those who trade the markets would attempt to sell before such a decline, and as selling pressure began to mount in the market there could be a decline in the dollar price, and even domestic investors, with no foreign exchange risks, would want to sell before the market declined further. A cascading effect could thus be triggered by the belief an official devaluation of the currency might be the new government policy. The official report on the October crash by the Securities and Exchange Commission indeed verifies heavy selling by foreign mutual funds at the opening bell on Black Monday.

The dollar in the international banking system

The demand for dollars for international bank payments represents another source of volatility in the capital markets. The U.S. dollar is the principal currency in international trade, and every major bank outside the United States offer depository services to clients denominated in dollars. The growth in dollar-denominated deposits worldwide has been phenomenal in the past 20 years. Table VIII.1 shows the magnitude of this growth in international financial services.

TABLE VIII.1.—ECONOMIC ACTIVITY, INTERNATIONAL TRADE, AND INTERNATIONAL BANKING, SELECTED YEARS, 1964–85

Indicator	Amount (billions of U.S. dollars at current prices and exchange rates)					Compound annual rate of growth (percent)			
	1964	1972	1980	1983	1985	1964–72	1972–80	1980–85	1964–85
Gross domestic product: World excluding Soviet Bloc [1]	$1,605	$3,336	$10,172	$10,140	$12,825	9.6	15.0	4.7	10.4
International trade in goods and services: World excluding Soviet Bloc [1]	188	463	2,150	1,986	2,190	12.0	21.2	.4	12.4
International banking:									
BIS series for net international bank credit, BIS reporting area [2]	12	122	810	1,240	1,485	33.6	26.7	12.9	25.8
Morgan Guranty series for gross size of international banking market [3]	20	208	1,559	2,253	2,598	34.0	28.6	10.8	26.1

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[1] IMF, "International Financial Statistics, Supplement on Output Statistics," No. 8 (Washingotn, D.C.: IMF, 1984), and data from IMF, "International Financial Statistics Yearbook 1986." Both the output and trade series incorporate rough estimates for some countries. "Trade" is a country aggregation of statistics for exports of goods and services. The 1985 figures are partly estimated by Bryant.

[2] Bank for International Settlements. "Annual Reports" and quarterly statistical releases on international banking developments. In concept this series nets out interbank redepositing among the banks in the reporting area. The reporting area in recent years has included banks in the Group of Ten countries plus Luxembourg, Austria, Denmark, Ireland, and the offshore branches of U.S. banks in the Bahamas, the Cayman Islands, Panama, Hong Kong, and Singapore. Banks in Finland, Norway, and Spain were added to the reporting areas as of December 1983. Only the Group of Ten countries were included in the reporting area in the 1960s and early 1970s. The figures for 1964 and 1972 are partly estimated by Bryant.

[3] Morgan Guaranty Trust Company of New York, "World Financial Markets," various issues. This measure differs from the BIS series for net international bank credit in two major ways: it includes redepositing among the reporting banks and it defines the reporting area to cover a larger number of countries and banks. The figures for 1964 and 1972 are partly estimated by Bryant.

Note.—This table appeared in International Financial Intermediation by Ralph C. Bryant (Washington, DC: The Brookings Institution, 1987).

Source: IMF.

As world trade and financial transactions have expanded, bank reserves maintained by foreigners in the United States have expanded. In 1970, foreign deposits in U.S. banks were less than $29 billion. By 1986, foreign deposits were $477 billion—more than a 19 percent annualized rate of increase. Foreign banks that offer dollar-accounts to their clients need to maintain dollar reserves in correspondent banks in the United States. Any bank that opens a customer account or makes a loan must anticipate the full or partial withdrawal of funds by the customer, as he uses the account for payments. Every disbursement, unless it should happen to be to another customer of the same bank, requires the out-payment of reserves. The payment could, of course, be in the form of currency, but his is rare in legitimate international transactions. Thus, a check or other instrument would be drawn in "U.S. dollars" on one foreign bank and deposited in another. The bank into which the deposit is made would collect the funds through its U.S. correspondent bank from the correspondent bank of the payer.

In general, the international banking system operates on the basis of maintaining prudential reserves adequate to cover any reasonable demand for payments. Prudential reserves in a banking system without a central bank as "lender of last resort" would have to be, in some circumstances, far greater than required reserves in a banking system regulated by and supported in its emergencies by a central bank.

These U.S. bank obligations to foregin banks are greater than all other private-sector foreign investments combined (see Table IX.2), yet they are not a "debt" for which repayment will ever be requested—because they are the working capital, or prudential reserve, of the Euro-dollar banking system. The reserve is no more likely to be drained or reduced, i.e. "withdrawn," than the natural gas supply in the underground pipes of a modern city is likely to be drained or reduced. The dollars in this "monetary base for the Eurodollar" are demanded as dollars per se, as tools of the banker's trade, just as nuts and bolts are held as inventory—reserves—by a machine shop. Indeed, as the world economy expands, and if the dollar retains its relative proportion in the Euro-currency markets, the demand for bank reserves will continue to expand the level of foreign deposits in U.S. banks.

The monetary reserves that overseas bankers need to conduct their business, in the currency of their customers' preference, if it is the U.S. dollar, can only be obtained by selling goods or services to someone in the United States and receiving payment in local currency here. In this regard, money itself becomes an export commodity—a commodity that is produced by the Federal Reserve rather than U.S. industrial or agricultural workers. This contributing factor to the current account deficit is, or course, a classification problem in the national income accounts, not a true trade issue: monetary reserves are not counted as an export.

As a source of volatility, however, the foreign demand for Eurodollars in trade financing is much more a matter of business discretion than the dollar's use in domestic U.S. business. The choice of a currency for pricing trade goods or financing or insuring them internationally is not exactly restricted by law. It is more likely to be a function of the nationality or location of the banks through which the trade is financed, based on consideration of interest rates in different currencies, exchange rate stability, ect. Again, the concerns of the financial community about any "policy surprise" are an important driving force affecting demand for a currency and capital assets denominated in it.

Policy consequences

The implications for monetary theory in today's world of Eurocurrencies and large, volatile shifts of financial capital across borders is profound. In the Keynesian as in the neoclassical economic framework, government spending is autonomous and drives national income; the creation of reserves by a monetary authority injects exogenous liquidity. The pace and level of economic activity is driven by the transfer of command over resources by these autonomous expenditures and/or exogenous injections of capital market liquidity. In a world of open economies, however, the change in preference to hold assets denominated in dollars rather than yen, or other currencies, affects the exchange rates and can have violently disturbing impacts on capital asset prices and the movement of capital, overwhelming the best intended plans of central bankers or fiscal policy planners.

The monetary policy of the United States is increasingly constrained by the necessity to stabilize the foreign demand for the dollar as an international currency unit. From the standpoint of sovereignty, or course, the independence of action by our government is reduced in this world market environment.

IX. U.S. FOREIGN DEBT

Much has been made of America's status as a "debtor nation." Observers have compared the U.S. economy to Latin American debtors that are dependent on foreign capital to stave off collapse. The conventional wisdom is that we have borrowed foreign funds for a consumer spending binge and will have to suffer a lower standard of living to service the debt. Some have even claimed that our profligacy has made an economic collapse inevitable.

This chapter refutes such a belief. Investors around the world are shipping capital across increasingly meaningless boundaries on the world map to seek the highest returns. Consumers share in the benefits as well. The conventional view of an economy is nationalistic, as if one nation's economic system could be observed apart from the world economy. Today, however, that is an incomplete frame of reference.

Just as a state's successful economic development strategy will attract investment from other regions of the country, so will a nation's successful economic policies and dynamic growth attract capital from slower growing regions of the world. During the 1980's America has experienced sustained, low inflation growth and thus has been the beneficiary of foreign capital inflows from around the world. It is this inflow that has caused our "indebtedness." But concern about this new status has been exaggerated in many quarters. To separate rhetoric from reality it is necessary to get a clearer picture of America's net investment position.

The nature of America's indebtedness

America is called a debtor nation because in 1985, for the first time since World War I, the recorded value of foreign investment here surpassed the value of our investment over-seas. As shown in Table IX. 1, America's "net debt" position expanded from $112 billion in 1985 to $263 billion in 1986 (the latest available data) and will probably exceed $400 billion for 1987.

One caveat, however, is that measurement of America's net investment position is not very exact. The problem is that some of the investments on the balance sheet are recorded at their current estimated "market" value, while others are listed at "book" value, the historical value of the asset at the time the investment was made. Because most foreign direct investment in the United States is of newer vintage than America's investment abroad, our foreign liabilities, and thus our "indebtedness," are overstated. Attempts to correct the distortion reveal that we still are net creditors to the world. Nevertheless the trends, if not the levels represented by the figures in Table IX.1, are probably accurate.

TABLE IX.1.—INTERNATIONAL INVESTMENT POSITION OF THE UNITES STATES, YEAREND 1970–86

[In billions of dollars]

Year	All investment [1]			Direct investment			Corporate stock			Debt instruments [2]		
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net
1970	165	107	59	76	13	62	7	27	−21	72	66	6
1971	176	134	56	83	14	69	8	31	−23	78	89	−10
1972	199	162	37	90	15	75	11	39	−29	88	108	−21
1973	222	175	48	101	21	81	10	34	−24	99	121	−21
1974	256	197	59	110	25	85	9	24	−15	125	148	−23
1975	295	221	74	124	28	96	10	36	−26	150	158	−8
1976	347	264	84	137	31	106	10	43	−34	189	190	−1
1977	379	306	73	146	35	111	10	40	−30	211	232	−21
1978	448	372	76	163	43	120	11	42	−31	262	287	−25
1979	511	416	95	188	55	133	15	48	−34	297	313	−17
1980	607	501	106	215	83	132	19	65	−45	362	353	9
1981	720	579	141	228	109	120	8	64	−47	463	406	57
1982	825	688	137	208	125	83	19	76	−58	587	487	100
1983	874	784	90	207	137	70	26	96	−71	630	551	79
1984	896	892	4	211	165	47	27	94	−68	647	632	15
1985	949	1,061	−112	230	185	45	40	124	−85	668	752	−84
1986	1,068	1,331	−263	260	209	51	51	167	−116	746	955	−209

[1] Official gold holdings (about $11 billion each year) are included in total assets but not elsewhere.
[2] Data include government securities, bank assets and liabilities, and corporate bonds.

Source: Survey of Current Business, U.S. Department of Commerce.

Not all liabilities are debt

A concern about the increased capital inflow is that we are only borrowing to finance our budget deficit or for a binge of consumer spending on foreign imports. A closer look at the type of investments made by foreigners shows that this perception is not true. Foreign investment has been broad based. Moreover, not all U.S. foreign liabilities are debt. As shown on Table IX.1, 28 percent of foreign liabilities at the end of 1986 consisted of direct investment and investment in the stock market. These equity investments are not debt in the conventional sense because there are not any fixed, regular service payments. Foreigners only receive a return if the investment is profitable.

At the end of 1986, the United States was still a net creditor in direct investment by $51 billion. We have traditionally been creditors because, for a long time after World War II, American companies in search of markets, raw material, and cheap labor invested abroad whereas foreign companies did not find it as profitable to invest here. In recent years, however, the situation has reversed due to a favorable climate for starting and expanding business investment in the United States. This investment came, despite relatively high U.S. interest rates, because of strong economic growth and the Economic Recovery Tax Act of 1981, which substantially reduced the effective tax rate for foreign as well as American corporations. Studies by Daniel Frisch and David Hartman report for the National Bureau of Economic Research that "a one percentage point increase in the net rate of return caused by a decline in the effective local corporate tax rate increases the investment in that country more than 30 percent over a four-year period."

Like direct investment, foreign capital inflows to the stock market are an equity investment with no guaranteed return. As demonstrated by last October's stock price crash, foreigners are just as vulnerable to market reverses as American investors. At the end of 1986 we were "net debtors" by $116 billion in corporate stock. This debtor position is not surprising because foreigners traditionally have found our highly developed stock market a profitable place for their funds while the relatively underdeveloped equity markets abroad provided fewer opportunities for American investors. Our net debt expanded during the 1980s as foreigners joined American investors on the stock market's bull run. For foreign investors, the rising dollar enhanced the already attractive American stock market. Ironically, the stock market crash last October resulted in lower U.S. foreign indebtedness, because the value of the foreign stock portfolio in this country was reduced.

The debt dilemma

Many people are concerned that a large proportion of U.S. foreign liabilities is debt, not equity, which we are committed to servicing in fixed payments at regular intervals. This balance in debt instruments changed dramatically from a positive $100 billion in 1982 to a negative $209 billion in 1986. Table IX.2 shows the U.S. private and public sector balances in debt instruments.

TABLE IX.2.—DEBT INSTRUMENTS, U.S. INTERNATIONAL INVESTMENT POSITION BY SECTOR, YEAREND 1970–86

[In billions of dollars]

Year	Government			Private bank			Total private nonbank			Private nonbank corporate and other bonds			Others		
	Assets [1]	Liabilities	Net	Assets [2]	Liabilities [3]	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net
1970	36	21	15	14	29	−16	23	16	6	14	8	7	9	9	0
1971	36	47	−11	17	23	−6	25	19	7	16	9	6	10	9	0
1972	39	56	−17	21	30	−9	28	23	6	17	12	5	11	11	1
1973	42	57	−16	27	39	−12	31	25	6	17	13	4	14	12	2
1974	43	62	−20	46	60	−14	36	25	11	19	11	8	17	14	3
1975	46	72	−26	60	59	1	44	27	17	25	13	12	18	14	4
1976	53	88	−35	81	71	10	55	31	24	35	18	17	21	13	7
1977	57	123	−66	93	78	14	62	31	31	39	19	21	22	12	10
1978	61	150	−89	131	101	30	70	36	34	42	20	22	28	16	12
1979	66	134	−67	157	141	16	73	39	35	42	20	22	31	19	13
1980	79	148	−69	204	151	52	78	54	24	43	24	20	35	30	4
1981	87	157	−69	294	192	101	82	57	25	46	26	20	36	31	5
1982	97	172	−75	405	253	152	85	57	25	46	26	20	36	31	5
1983	102	185	−83	435	304	131	93	62	31	58	35	23	35	27	8
1984	109	216	−107	446	338	107	92	79	13	62	48	14	30	31	−1
1985	120	243	−123	447	381	66	102	128	−26	73	99	−25	28	29	−1
1986	127	291	−164	506	477	29	113	188	−75	80	161	−81	33	27	6

[1] Official gold holdings (about $11 billion throughout this period) are excluded because they do not represent financial claims on foreigners.

[2] Mostly U.S. loans abroad.

[3] Mostly foreign deposits in U.S. banks.

Source: Survey of Current Business, U.S. Department of Commerce.

Contrary to popular belief, the private sector and not the Federal Government is the source of most of its country's foreign debt obligations. The private banking and non-baniking sectors alone account for $665 billion in debt instruments, or half of all outstanding liabilities to foreign investors. Moreover, the increase in these private sector debt instrument liabilities accounts for over 50 percent of the $400 billion change in our total investment balance between 1982 and 1986.

Corporate bonds account for the bulk of non-bank private sector liabilities. Foreign investment in corporate bonds skyrocketed during the 1980s from $26 billion in 1982 to $161 billion 1986. The attractiveness of bonds and other debt instruments was enhanced in 1984 with the repeal of a 30 percent withholding tax on interest earnings by foreigners. Bonds are debt in that they must be served regularly, but the capital inflows to this market expanded the productive capability of American businesses and enhanced their ability to service the bonds. Furthermore, the bonds would have to be serviced on a regular basis whether the bondholders were foreign or American.

The banking sector accounts for half of foreign liabilities, and those are primarily Eurodollar reserves, as explained in Chapter VIII. As shown in Table IX.2, U.S. banks were still net creditors to the world at the end of 1986, although the balance had disminished to $29 billion from $152 billion in 1982. U.S. banks were substantial net creditors during the early 1980s because of their massive lending to the Third World. The debt crisis that began in 1982 caused U.S. banks to retrench while the frenzied demand for dollars expanded foreign deposits in American banks. It is curious why many believe it was more desirable for American banks to be net creditors burdened by increasing exposure to shaky foreign borrowers than it is for them to be net debtors with an inflow of foreign capital. Granted, the banks must "service" this capital with interest payments, but it is unlikely that an increased inflow to the banking system from domestic depositors would arouse similar debt service worries.

The government, not suprisingly, is a chronic net debtor to the world. This debt reflects the fact that the U.S. dollar is the most widely used international currency and U.S. Treasury securities, which have the full backing of the U.S. Government, are considered the safest investment in the world. Obviously, they are attractive to both private and public sector foreign investors. Foreign central banks hold U.S. Treasury securities as a part of their reserves, they use to cover shortfalls in foreign exchange earnings and to intervene in foreign currency markets to manage the movements of their own currencies against the dollar. While during the early 1980s the purchases of government debt by foreigners were caused by relatively high interest rates and the appreciating dollar, more recently the major buyers have been foreign central banks attempting to stem the slide of the dollar against their currencies to cushion its effect on their domestic economies.

The U.S. Government is the villain in most tales describing America's indebtedness. Most people believe that rather than stimulating investment foreign capital is financing our Federal budget deficit. Contrary to popular belief, however, foreigners do not hold the bulk of our government debt. In fact, as shown in Table IX.3 foreigners only held 14.6 percent of total U.S. Treasury debt at the end of the third quarter of 1987, compared with 16.7 percent in 1981.

TABLE IX.3.—U.S. GOVERNMENT SECURITIES HOLDINGS, 1981–87–III END-OF-PERIOD LEVELS

[Dollars in billions]

Year	Total outstanding	Held by foreigners	Percent of total held by foreigners
1981	$829.7	$138.6	16.7
1982	991.1	151.4	15.3
1983	1,177.7	167.1	14.2
1984	1,376.6	194.8	14.2
1985	1,600.3	214.4	13.4
1986	1,815.4	257.2	14.2
1987–III	1,896.1	277.3	14.6

Source: Flow of funds accounts, Federal Reserve Board of Governors.

More revealing, however, are the capital flow figures shown on Table IX.4. Of the $910 billion in foreign capital inflows between 1981 and 1987, only 18 percent went for U.S. Treasury securities to finance the government debt and nearly half of those flows came in 1986 and 1987 from foreign central banks trying to stem the slide of the dollar against their currencies. By contrast, nearly 40 percent of total capital inflows between 1981 and 1987 went for direct investment in American businesses and corporate securities. This boon to investment has been all but overlooked by most critics.

TABLE IX.4.—U.S. INTERNATIONAL TRANSACTIONS

[In billions of dollars]

Year	Capital inflow to the United States					Capital outflow overseas				
	Total [1]	U.S. Treasury securities [2]	Direct investment	U.S. corporate securities [3]	Bank liabilities [4]	Total	Direct investment	Foreign securities	U.S. bank assets [5]	Other outflows
1975	$15.7	$7.3	$2.6	$2.5	−$1.6	$39.7	$14.2	$6.2	$13.5	$5.8
1976	36.5	12.1	4.3	1.3	12.0	51.3	11.9	8.9	21.4	9.1
1977	51.3	30.7	3.7	2.4	7.5	34.8	11.9	5.5	11.4	6.0
1978	64.0	25.8	7.9	2.3	21.7	61.1	16.1	3.6	33.7	7.7
1979	38.8	−17.4	11.9	1.4	39.8	64.3	25.2	4.7	26.2	8.2
1980	58.1	12.3	16.9	5.5	10.6	86.1	19.2	3.6	46.8	16.5
1981	83.0	7.9	25.2	6.9	33.4	111.0	9.6	5.7	84.2	11.5
1982	93.7	12.8	13.8	6.1	63.9	121.1	2.4	8.0	111.1	−0.4
1983	84.9	15.7	11.9	8.2	50.8	49.1	0.4	6.8	29.9	12.7
1984	102.5	27.7	25.4	12.6	34.4	22.3	2.8	4.8	11.1	3.6
1985	129.9	19.6	19.0	51.0	41.6	31.4	17.3	7.5	1.3	5.3
1986	213.4	43.0	25.1	70.8	77.4	96.0	28.0	3.3	59.0	5.7
1987	202.6	38.8	40.6	42.1	77.9	63.8	38.2	3.7	33.4	−11.5

[1] Components will not sum to the total because several small categories omitted.

[2] Includes both foreign Government and foreign privte sector purchases of U.S. Treasury securities.

[3] Includes some government securities other than U.S. Treasury securities.

[4] Mostly foreign deposits in U.S. banks.

[5] Mostly U.S. bank loans abroad.

Source: U.S. Department of Commerce, Survey of Current Business, June and December 1987, "U.S. International Transactions."

Understanding the concern about net indebtedness

This new state of indebtedness has caused a great deal of concern in many quarters. While dramatic changes in measures of international economic activity merit attention, concern over America's net indebtedness is exaggerated.

The prevailing thoery describing how we became debtors is responsible for much of the anxiety. The most common explanation is that the persistent American proclivity for saving too little in relation to investment widened the current account deficit (the balance of trade in goods and services) and "sucked in" foreign capital. The savings deficiency is blamed on the budget deficit. This theory however, is dependent on the idea that capital flows merely accommodate changes in the current account. But there is another view.

The capital flows can be regarded as a vote of confidence in the U.S. economy. It is safe to say that a strong economic recovery coupled with lower marginal tax rates on dividends, capital gains, interest income, and profits was bound to lure investors to the United States and to make U.S. investment abroad less attractive.

In this sense the capital account drove the current account. Henry Wallich, former member of the Board of Governors of the Federal Reserve, has argued that foreign capital "overfinanced" our current account deficit. Foreign demand for dollar investments exceeded the amount of capital needed to finance the current account deficit, causing the dollar to appreciate. The stronger dollar caused the current account deficit.

The view that foreign capital was attracted because of world confidence in the American expansion is strengthened by a closer look at the capital inflows. The prevailing view maintains that the foreign capital was attracted by the relatively high U.S. interest rates caused by the savings-investment gap. This scenario does not explain why capital inflows accelerated and the dollar continued its rise once interest rate differentials narrowed in 1984. Nor does it explain the strong foreign demand for direct investment in plant and equipment and the stock market—two sectors normally hurt by high interest rates. Foreign investor confidence in a continued American economic expansion cannot be ignored as a cause of the dramatic shift in our net investment position.

Rather than a vote of confidence, many believe we experienced a loss in prestige because of our "debtor" status. But it is difficult to understand how uncoerced capital inflow signifies a loss in prestige. Why is it more prestigious to be a capital exporter when it means that investment opportunities abroad are more attractive than those at home? Similarly, why do some of the same people who believe that importing capital has caused a loss of prestige, criticize American companies for exporting capital by building plants abroad and "taking jobs away from Americans"?

One reason for the feeling of diminished international prestige is the comparison with troubled Latin American debtors. Besides the obvious advantage in the size and strength of our economy, one reason we are not a typical debtor is the special role of the dollar. The dollar is the currency in which the majority of world trade is priced and paid for. As a result, unlike other countries, the United States borrows in its own currency and does not have to earn foreign exchange to repay its debts. Thus, there is no risk of a shorage of foreign exchange. Also, because of the dollar's special role, foreigners always need to keep dollar balances to finance trade and to hold as investments in Euro-dollar reserves. As long as the dollar remains the dominant currency in international trade and finance, foreigners will always be willing to hold dollar assets, thereby "lending" dollars to the United States.

Aside from comparisons with troubled debtors, many Americans are concerned about indebtedness because they are distrustful of foreign investment. Even though foreign inflows have been a boom to our corporate and banking sectors, and foreign firms in the United States employed nearly three million people and accounted for 26 percent of our exports in 1985, many Americans are wary. They fear a loss of control. One argument is that we cannot rely on foreigners because they could remove their investment at will. But why would domestic investors be less likely than foreigners to pull out if they can realize higher returns elsewhere? Domestic investors are presumbly just as rational as foreigners and will eagerly shift their portfolios and plants and equipment out of the country to realize the highest returns on their investments. This concern is a good reason to make sure that tax and other economic policies remain attractive to all investors.

Another concern is that foreigners are providing the credit for much of U.S. economic activity. While foreign investment is playing an increasingly vital role in U.S. financial markets, concern over foreign domination is exaggerated. Table IX.5 presents the proportion of total U.S. credit market debt held by foreigners. The proportion held by foreigners rose rapidly during the 1980s, but by the third quarter of last year only amounted to 5.1 percent. Although not insignificant, foreign activities in U.S. credit markets should not be overstated.

TABLE IX.5.—TOTAL U.S. CREDIT MARKET DEBT OUTSTANDING, 1981–87–III END-OF-PERIOD LEVELS

[Dollars in billions]

Year	Total	Amount held by foreigners	Percent of total held by foreigners
1981	$5,183.2	$200.4	3.9
1982	5,643.5	224.1	4.3
1983	6,313.5	247.7	3.9
1984	7,225.2	305.6	4.2
1985	8,278.8	367.9	4.4
1986	9,401.2	470.5	5.0
1987–III	10,100.2	518.0	5.1

Note.—These figures differ from Commerce Department statistics on the international investment position of the United States because of accounting.

Source: Flow of funds accounts, Federal Reserve Board of Governors.

Another reason why the growing foreign investment is perceived to be a problem is because there is a concern about "servicing" the investments. Many analysts have attempted to measure this debt service by applying a market interest rate to the U.S. net debt. They predict that if the net debt expands from its 1986 level of $263 billion to $800 billion by 1990, the debt service would be $60 billion. They conclude, as a result, our income and standard of living would be reduced by $60 billion in 1990. There are two flaws with this reasoning.

First, because our foreign assets and liabilities are held in a variety of forms, as described above, determining U.S. payments on the foreign debt is a fairly complicated exercise. Debt service for the United States is really "net investment income," or the excess of earnings from foreign assets over the payments on liabilities. Even though the net debt was $263 billion in 1986, the United States did not pay net debt service. Instead the world transferred $23 billion in net service payments to the United States. This anomaly is related to the measurement problem cited above. Because most American foreign direct investment has been in place longer than foreign investment in the United States, American investments earn a higher rate of return on historical book values.

During the third quarter of last year, however, the United States made net service payments of $300 million, and it is likely this trend will continue. Careful estimates by the International Institute of Economics suggest that these payments are not likely to be very large in the near future. With a net debt of $500 billion, the service payments would be about $10 billion. This amount is less than the United States transferred out as gifts and aid to the rest of the world in 1986. If the United States continued to incur new net debt every year equivalent to 3.5 percent of GNP, the Concil of Economic Advisors estimates that net debt will reach 40 percent of U.S. GNP by the end of the century. This proportion would not be much larger than Canada's in recent years, but would bear monitoring because of its historic size.

One factor often ignored is that our net indebtedness reflects foreign investment that has added to our national income and increased the productive capacity of our economy. Although the relative merits of foreign investment in government securities are debatable, the benefits of corporate investment are clear. As described above, foreign investment has been a boon to our corporations and banks.

Finally, these investments in the U.S. economy, if made by Americans, would have to be serviced in exactly the same way. Most people are not alarmed by debt service from Americans to Americans because the funds are not "leaving the country." Foreigners, however, are not any more likely (nor any less likely, for that matter) than Americans to take their interest and dividend earnings on U.S. investments from the country. They, like American investors, will be looking for the highest available returns. If they expect economic policy to remain favorable for investment in the United States, they will reinvest their earnings. To the extent that funds do return to the home country, however, foreigners will have increased ability to buy our exports if we remain competitive and progress continues to open markets abroad.

The lesson for American policymakers is we can no longer conduct policy without regard to its impact on the expectations of the world's investors. This development is not the result of "bad policy," or indebtedness, or the decline of American economic power, but rather is a reflection of the expansion and liberalization of the world's capital markets.

X. SUMMARY AND CONCLUSION

Republican economic policies instituted by the Reagan Administration ended the stagflation and malaise of the late 1970s. These policies, once taking hold, dramatically reversed deteriorating trends in economic growth, interest rates, inflation, investment, business earnings, productivity, and other indicators of economic well-being. Most importantly, the economy has generated 15 million new jobs and real median family income has climbed 10.7 percent since 1982.

In addition, the trade picture is improving. In fact, U.S. exports will likely represent this year's leading growth sector. Anticipating real economic growth in 1988 to be approximately 2.5 percent, we expect the economy will successfully enter its seventh consecutive year of expansion later this year, extending the record for the longest peacetime expansion in U.S history.

The budget deficit remains a national concern and disgrace. Comparing 1987 to 1980, the American taxpayer forked over $337 billion in additional revenues. But the Congress "managed" to spend $414 billion more, adding $77 billion to the prevailing deficit level. Since 1980, revenues have gone up 65 percent; higher tax revenues do not cause budget deficits. It is of little comfort to realize that following the enactment of the Roth-Kemp tax legislation of 1981 that the share of the income tax burden paid by the affluent rose from 35 percent to 40 percent, while that of the middle class declined from 85 to 52.5 percent.

Once again, we Republican members of the Joint Economic Committee call upon the Congress to enact the balanced budget/tax limitation constitutional amendment, and the line item veto. Furthermore, we encourage the President to test the constituionality of his power under Article I, Section 7 of the Constitution to veto any item of omnibus legislation that was subject to a separate vote during the legislative process.

Strong, persistent, and reliable economic growth in the United States, stimulated by tax rate reductions and other policies, have attracted substantial investment from overseas. It is this inflow of capital that has caused our much heralded and misunderstood international indebtedness. Alarmists allege that the huge inflow of foreign capital into the United States during the 1980's will require massive debt servicing payments to foreigners in the future, thus forcing a recession, a long-term reduction in U.S. standard of living, or both. Of the $852 billion in foreign capital inflows between 1981 and the third quarter of 1987, however, only 17 percent went for U.S. Treasury securities. The remainder went for direct investment in U.S. businesses (17 percent), corporate securities (24 percent), and U.S. bank liabilities, mostly foreign deposits (42 percent).

This massive movement of financial capital across national borders is paralleled by movements of technical capital, goods, and services. Together, these capital flows are evidence of a new age in international trade. The U.S. economy, being the envy of the world, has been the model of this developing global economic freedom. This rapid integration of domestic markets necessitates better description and understanding to ensure that the United States maintains its leadership contribution in this historical development.

The ability not only of our free market system to adapt to change, but also of American investors, enterpreneurs, and workers to cause change is a principal reason why the United States is the world's greatest economic power. This economic evolutionary process, if continually nutured by wise public policy, will hold Americans in good stead for generations to come.

THE SUPPLEMENTAL VIEWS OF REPRESENTATIVE OLYMPIA J. SNOWE

Although this year I have joined in signing the Joint Economic Committee's Minority Report, there are some matters that warrant further discussion. These issues include the Minority Report's sections on the stock market break of October 19, 1987, omnibus appropriations measures, our trade performance and the distribution of the income tax burden.

First, the stock market's sudden dramatic losses and high volatility subsequent to October 19, signaled Wall Street's loss of confidence in the ability of Washington policymakers to properly address important economic issues, such as the budget deficit. The message from Wall Street was simple. It is critically important to out nation and the economy for the Reagan Administration and Democratic-controlled Congress to work together towards reaching bi-partisan agreement on deficit reduction legislation.

And while I was disappointed that the Budget Summit's final product did not make bigger reductions in the deficit, it was a step in the right direction. having the Administration and Congressional leadership agreeing on the broad outlines of a $75 billion, 2-year deficit reduction package demonstrated that consensus on important economic issues can be reached between the Executive and Legislative branches. Clearly, the Administration and Congress must continue to work together on the many important issues before us this year, in light of the experiences of last October.

Second, I believe that the repeated use by Congress of omnibus appropriations measures, commonly referred to as Continuing Resolutions, contributes to the avoidance of the tough choices that must be made in order to reduce our budget deficit.

Government by Continuing Resolution, where massive appropriations legislation containing several hundred billion dollars in federal funds are passed in one single bill, represents and reflects deep-rooted problems within the annual budget process. Furthermore, it exacerbates our already serious fiscal problems by concentrating too much decision-making ability with too few Members of Congress.

The normal legislative process and procedures for funding the various departments, agencies, and programs of the federal government is seriously eroded by the repeated use of omnibus Continuing Resolutions by the Congress, to the detriment of the government and Nation. For example, this fiscal year, FY 88, was more than a month old by the time the full House of Representatives was given the chance to consider roughly $350 billion in funding for the Defense Department, and foreign aid programs. To make matters worse, the inclusion of this controversial funding in a continuing appropriations measure precluded the offering of any amendments to make changes in this $350 billion.

During the March 2nd House Republican Leadership Conference for the second session of the 100th Congress, I offered a resolution that provided the Conference with the opportunity to join President Reagan and go on record againt the use of any omnibus Continuing Resolutions for FY 89.

The adoption of my resolution made it the Conference's basic policy that House Republicans shall refrain from any participation whatsoever in the drafting, preparation, and approval of an omnibus Continuing Resolution. My resolution also pledged that the Republican Conference intends to support presidential vetoes of any such omnibus appropriations measure as well. This resolution allowed the House Republic Conference the opportunity to demonstarte again its strong commitment to fiscal responsibility, as well as help avoid many of the budgetary and fiscal problems that result directly from the reaped use of omnibus Continuing Resolutions.

In this regard, I know that there are many other proposals to address problems within the current congressional budget process. These efforts have included this Report's calling for the enactment of line-item veto power for the president. Without necessarily dissenting from that particular suggestion, I would simply express the hope that Congress should give all such proposals to reform the annual budget process serious review and consideration.

Third, I am concerned that the Trade Performance section blames U.S. trade problems solely on macro-economic trends. This analysis underestimates the impact of unfair foreign trade practices.

In fact, we as a nation have allowed our preference for free trade to preempt action in the face of foreign trade barriers to commerce, U.S. trade policies must react to the realities of international trade, with its attendant volatility, manipulation and distortion.

As trade analysts Pat Choate and Juyne Linger conclude, "nearly 75 percent of all world commerce is conducted by economic systems operating at principles at odds with those of the United States. The loss of dominance by the free trade economies must bring a dramatic shift in the overall goal of U.S. trade policy."

Other countries' governments do manipulate international trade, and unless the U.S. takes responsive steps a segment of the trade deficit will continue to mount, regardless of fiscal or monetary adjustments.

In addition to strengthening our trade laws, we must also demand a much tougher enforcement of existing laws. This government must make a commitment to develop a strategy that provides new and equal opportunities for American industries to compete at home and abroad. On an equal footing, our industries can be highly competitive.

Finally, the Minority Report's discussion of the distribution of the income tax burden and the upward shift in the tax burden are the last two examples of specific passages on which I find myself having some concerns about the Report's implications.

The tax cut in 1981 was an important first step in the overhaul our tax laws. That legislation "set the stage" for a much more comprehensive reform of the Internal Revenue Code by the 99th Congress in 1986. Some of the very positive aspects of this legislation are its establishment of two basic individual tax rates of 15 and 28 percent, the removal of an estimated six million working poor living at or below the poverty level from the tax rolls, and increased personal exemption and standard deduction amounts for individual taxpayers that are intended to compensate for the reduction and elimination of some itemized deductions.

I would have preferred that the 1986 Act produce a more progressive tax code. Congress must continue to monitor closely the final implementation of this multi-year tax reform measure and its impact on lower and middle income taxpayers. The Congress may need to make certain modifications in order to address concerns and problems of this nature that may arise.

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